

RAMBLES IN EUROPE

By William Henry Smith

Summerside

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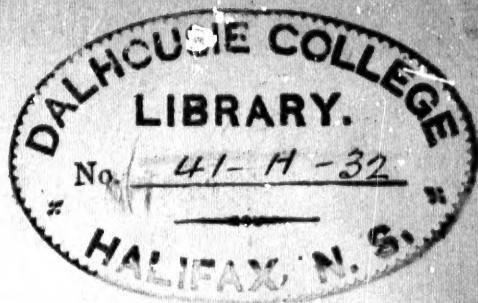
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Summerside P.E.I.

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TRAVELS

— IN —

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BELGIUM AND HOLLAND

BY JOHN ~~M~~ACKINNON

Sometimes Editor of Pioneer

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RAMBLES IN EUROPE.

IN August last the even tenor of my way was interrupted by a circumstance that made some kind of mental labor needed. In absence of something more pressing, I on September 1st began extending notes taken while on European travel. Whether the decision was wise or not the reader can say on perusing the volume. Bookmakers usually state in the preface that if a perusal give an hour of pleasure or a twinge of comfort they will be paid in full for the effort. The same here: for a book to make a kindly impression has to be bought and presumably paid for. In that case the greater number my book makes happy, the more am I paid in kind—and SPECIE.

My first visit to the old country was in 1887, arriving at Liverpool in June of that year. Two or three miles before reaching the landing-stage a fort mounting 16 guns is passed half a mile to right. Even this small show of arms is needless, seeing the place is secure owing to a shifting sand bar at mouth of river. But without natural defence there is small fear of invasion, as any fleet skulking around with hostile intent would likely get into trouble before reaching this far. The landing-stage is a floating structure over one-third mile long, outside the river embankment. As it rises and drops with the tide, one always steps aboard on the level. It is connected with the shore by eight bridges, one of them suited for carriage traffic. First opened in 1847, it was destroyed by fire in '74, but replaced two years later. To the numerous ferries the arrangement is beyond value, a fact proven during the interruption mentioned.

What first strikes one unaccustomed to a populous city is the hurry and racket at all times and places. The streets being paved with stone, the rattle of heavy vehicles crowding each other, is at first bewildering to one accustomed to small wooden towns. One is also struck with the massive solidity of everything—granite seawalls, granite docks and even granite streets. Liverpool is built on rising ground to right of the Mersey, and about

five miles from its mouth. Next to London it is the chief seaport of Britain, and if Birkenhead be added, it even outstrips that giant city. It scarcely contains a public building over 70 years old, owing to the necessity of enlarging to keep pace with its growth. In 1800 the population was given at 77,000; at present (if Birkenhead be added) it must contain about ten times that many. In 1785, five bales of raw cotton were imported; in 1801 the importation of that staple had increased to 98,750 bales—rising to 1,573,000 bales in 1861. Needless to say the Southern rebellion upset the cotton trade for years after; but latterly the yearly number of bales landed exceeds two million. In 1815 steamboats were seen on the Mersey; and on June 20, 1819, the first steamer from America arrived—the Savannah, 319 tons, 26 days from New York.

Liverpool, tho not a showy place, has many handsome buildings. St. George's Hall is one of the finest in Europe; Corinthian style, length 500 feet, cost £333,000. Its foundation was laid when Her Majesty was crowned (1837), and it was completed in 1854. The great hall is 166x74 feet; its magnificent ceiling of one arch rising 82 feet from the bottom. The organ is rated the finest in Britain, cost £10,000 and worked by a steam engine in the basement. The concert hall is also handsome and will contain 1300 persons. Under the floor are seven miles of piping, intended for hot air when required. In front of the building are four colossal lion figures, 13 feet long and 6 high, each costing a thousand dollars. The exchange covers two acres and cost £600,000. Its news room (175x90 and 50 to ceiling) is considered the finest in Europe. It is lighted by a central dome of stained glass, 50 feet diameter and 80 feet high. The Picton reading room and Walker art gallery are also royal structures. The town hall, municipal offices and railway stations are well deserving of notice.

The Y. M. C. A. was established here in 1846 and has effected much good. It has three large buildings in different parts of the city, each with lecture hall, reading room, class rooms, baths and restaurants. For educational purpose they afford facilities scarcely inferior to a college, while their gymnasium is rated the finest in Britain. The blue-coat school is also deserving of notice. It was started in 1708 by a seaman named Blundell, with accommodation for 50 boys; at present 200 boys and 100 girls are in attendance. Orphans are admitted at 8 and fatherless children at 9. The boys remain till 14, the girls a year later, when they are provided with trades or situations. The

boys wear blue swallow-tail coats, with brass buttons; the girls, a white kerchief round the neck, pinned in front. They are clean to a fault and appear in healthy condition; but their strange costume makes them resemble a colony of dwarfs preparing for stage acting. This was no doubt the style of dress adopted at first and things here don't change without an earthquake. A part of the building is fitted up for worship; here the children attend on sabbath afternoons, one of the boys acting chaplain. It is interesting to watch them march in and out, double file with the precision of clock-work. The chapel is usually filled with spectators, who on quitting are supposed to drop silver into the coffer. From the chapel the small people enter a large refectory where each sits down to a slice of bread and jug of milk, which they seem heartily to relish. Visitors are shown through the establishment and those in charge have no cause to blush for its neatness.

Liverpool is noted chiefly for its marvellous system of docks, particulars of which I intend to give later. Waterloo dock is entirely used for grain, consisting chiefly of wheat from Russia. Alongside the dock are immense warehouses, each over 600 feet long, six storeys high, all of granite, apparently solid enough to withstand the shock of a planet. The wheat all comes in bulk and from the steamers lighters (carrying 300 tons) bring it to the warehouse; thence by elevators to the highest flat, where it is weighed automatically (two tons at once) and carried to any part of the building on belts 18 inches wide, moving about 300 yards per minute. These belts hold at one time ten tons of wheat and carry 250 tons per hour. They cross at right angles and the mode of shifting the grain from one belt to another is no less ingenious than simple. Let us suppose a stream of wheat being carried on belt A has to be thrown on belt C, running at right angles. A foot or less from the crossing, belt A is raised a few inches by a roller, giving to it a sharp upward bend. This causes the wheat to fly into a box on the crossing, so constructed as to turn the stream upon belt C, and thence to its destination. The wheat is large-grained, very hard and dark. The dust in the weighing room seemed about as thick as Egyptian darkness, and I fail to understand how operatives could last long at the work. The warehouses are supplied with electric light, and by using different gangs of men, work need not suspend on account of natural darkness. It was no small business they did, for the overseer informed me they handled 300,000 tons the previous year. In the King's warehouse are usually stored great quantities of segars

and leaf tobacco. Formerly such goods when forfeited for duty, were burnt in a kiln called 'the the King's tobacco pipe,' but of late these staples are used for making sheep wash and other uses foreign to the original intent. England, tho a free trade country, has placed high duty on tea, tobacco and spirits; while a number of other things pay nominal tariff. Those named however are the only goods worth smuggling; and for these only do officials search your impedimenta on landing.

Liverpool has an excellent museum, several fine parks, and is well up in monuments to distinguished persons. In front of the town hall stands a group of bronze statuary (supposed to be the largest in Britain) representing the death of Nelson. There are also statues of Wellington, Prince Albert and the Queen. The city has sailors' homes, seamen's orphanage and asylum, infirmary for the poor, school for the deaf and dumb—in fact it abounds with charitable and reform institutions. Yet in common with large seaports it has swarms of unemployed and indigent people.

The ferry steamers between Liverpool and Birkenhead seem to be without number, and one has not to wait many seconds for a passage. (On average they carry 26,000,000 persons and 750,000 tons of goods per annum.) Yet owing to fog they are liable to collision, and in 1866 a bill was passed to drive a tunnel under the Mersey; but not till 1886 was the tube ready for traffic. It is about five-sevenths mile long, the width and height being 26 and 23 feet. It is faced with six rings of brick, and has a double railway track. For ventilation a seven-foot passage runs 20 feet from the main opening; and four large fans remove 20,000 cubic yards of air per minute. Drainage is effected by two giant pumps, lifting about 12,000 gallons a minute. Passengers are raised and lowered at each end by lifts, and the trip is made in a little over a minute.

Birkenhead across the river from Liverpool, has about 100,000 people, is a separate corporation, has a good town hall and fine railway station. Its dock warehouses are extensive and according to its population is ahead of Liverpool as shipping mart. But being eclipsed by the larger city, it receives small attention from abroad. It has the credit of being the first place in England to put street cars in operation—in 1866.

Chester 17 miles to west, was once of some importance. It was a colony of imperial Rome and afterwards the abode of Saxon monarchs. Julius Agricola encamped there over 1800 years ago and proofs of his occupation have been found in altars, tablets and pillars. Tiles with the potter's stamp and a pig of lead with the

word *CÆSAR* were dug in 1849; a year later a vessel was found with several hundred coins of third century minting. In 1853 the outfit of a Roman bath was discovered; and the town wall, tho Saxon, rests on foundations of Roman work. Stirring times for old Chester when the 20th legion bore its standards aloft, and shook the earth with its synchronous tread. Making a great skip of centuries, let us visit Phoenix tower, as from it King Charles (on September 27, 1645) watched the defeat of his troops by the parliament forces—three years later the unfortunate man lost his head on the scaffold. The water tower, built when the Dee laved the city walls, is yet in good condition, tho the river is now a quarter mile in the distance.

The 'rows' (so called) are a curious feature of two streets running at right angles to each other. Besides the ordinary sidewalk, there is a covered gallery along the front of the second story, and from this the best stores open—others being under them on level of the roadway. In other parts the houses are end to the street, the gables projecting over the sidewalk and supported by pillars. An old cage that draws a good deal of attention has the following inscription—'1652. GOD'S PROVIDENCE IS MINE INHERITANCE. 1652.' Tradition states that during a plague in 1652, the occupants escaped, and to show his gratitude, the owner had the above sentence carved in front. Of another house formerly a tavern named 'the Blue Post,' the following is related: In 1558 the Dean of St. Paul's was sent with a commission to disturb the Protestants in Ireland. Remaining a night at Chester, he lodged at the Blue Post inn. During the evening he was visited by the mayor and referring to the object of his mission, held up a box saying—'Here's what will lash the heretics of Ireland.' The landlady (who had a brother in Dublin) hearing the remark, opened the box and replaced the commission by a pack of cards while the Dean was escorting his worship down stairs. In due time the Dean arrived in Dublin, met Lord Deputy in the castle, opened the box and handed him (wrapped in silk) what he thought was the commission. It is needless to state that all around the board were duly amazed and for some-time speechless. Holding up the cards, 'These (said the Deputy) are good in their place, but will not do to roast heretics. Return, Mr. Dean in haste and produce a more valid parchment.' The Dean hurried back to St. James; but travelling in those days was slow and ere he could reach, Mary had passed away and fresh hands grasped the tiller. It is further added that Elizabeth granted to the Blue Post landlady £40 a year for her prompt action.

Chester cathedral is a fine gothic structure, the older parts standing 700 years, its material red sandstone. The stalls and choir are of 15th century work and of rare merit. The chapter house contains the colors of a Cheshire regiment carried at Bunker hill and the taking of Quebec. The communion table is a magnificent work, no less noted for material than finish. The top is oak from Bashan, the panels of wood from Olivet, other parts cedar from Lebanon. The carving represents the palm, vine, wheat and olive.

At west end of the town, the river is crossed by a handsome stone bridge opened in 1832 by Victoria, the present Queen. It cost £30,000 and consists of one arch 200 feet span—said to be the longest in existence. A bridge built in 1280 is half mile up river, and a fine suspension bridge further on. After passing the first mentioned, Chester cemetery is on the left, and one must have an ill conscience who could not sleep sound in such a valley. Two grave-diggers were preparing 'the appointed house' for some one and I noticed the excavation was fully twice as deep as similar holes in this country. Passing along westward, the suburbs are gay and pleasant. On the right are cosy homes, fairly smothered with trees and flowers; to the left green fields; in front the Welsh mountains with the palatial home of Gladstone nestling among the forest. West of the cemetery a gate opens into the Duke of Westminster's grounds. A lovely drive through a magnificent forest leads to Eton Hall, the Duke's splendid castle. It is surrounded by forest giants, the very gnarls of whose roots show blue blood flows within them. The proprietor ranks among the world's wealthiest men and the residence lacks no adornment that money can purchase. A clock tower 200 feet high, with a chime of 28 bells is among the attractions. Costly marble, the work of eminent artists, chimney pieces from Florence and Rome decorate the apartments. A herd of some 200 deer were grazing at hand and wild boar were grunting and rooting down the meadow. I spoke to a hind who was trimming the walks, hinting that no doubt he had an easy billet; for a man with a Niagara of gold must have a big heart within him. He said my conclusions were sadly astray, as 16 shillings a week was all he got to support himself, a wife and eight youngsters. He had to pay the Duke £5 a year rent for a cottage, in default of which he was at liberty to hunt for new pastures. Hearing this mine ire kindled, my countenance fell and I hastily started. In a little I arrived at a gate where stood a bareheaded lad to whom a shilling was paid to get a farther view of the Duke's dominions.

The day was extremely warm, but I strolled through forest, meadow, hill and dale, when on emerging from a wood I suddenly espied a fairy vison—a small clearing with stream passing through—a thatched cottage, a very dissipation of rustic neatness, with roses scaling the walls and great banks of flowers as protective ramparts. To my mind I had never seen anything quite so delightful—no bird's nest was ever so cosy or half so romantic. Such thatch! so even and thick, it looked like a great fur cap on the head of an urchin. This fairy home was the keeper's lodge, who was arranging tables and chairs on the lawn between his cot on the river—for a picnic invasion was soon to appear from the old town of Chester. Apart from the Garden of Eden, could any spot on this earth offer greater attractions? While refreshing my carnal man at a table outside the cottage, I enquired the shortest way to Chester and was told that a boat would pass down in a couple of minutes. The stream before me (scarcely more than a brook) was the quiet-flowing Dee, soiled with the dust of 30 leagues' tramp from its birth in the mountains. A tiny steamer soon appeared, with tree tops clasping hands above it—stopped at a landing, I sprang on board and off again. Few incidents left a more agreeable impression than the sail down that tiny river. The banks were lined with flowering shrubs and great trees, whose drooping branches trailed in the water. As we neared the town handsome residences reclined on sloping banks, flower gardens and well trimmed lawns down to the water, where was usually a small landing with boat to match it. After examining Roman remains along the stream, I bade farewell to Chester, with its towers and walls, its rows and its river.

Next day I left for Manchester.—distance 31 miles. This was the first railway of any account opened in Britain, and there was no small trouble in getting the bill passed. Stephenson during examination before the commons, happened to remark that in his opinion a locomotive could be made to run a mile in three or four minutes; whereupon some honorable members declared him fit for a home of insane rather than for any position of merit. The road was however built and opened in 1830, amid excitement probably as great as bridging the strait of Dover would cause at present. My stay in Manchester was short, and a provincial exhibition being in progress, most of the time was spent among its wonders. The town is rated the world's greatest manufacturing center, the leading industries being cotton and metals. The cathedral, town hall and court house are royal buildings. Free-

trade hall has sitting for 4000 persons. The newsroom in the royal exchange is 207x193 feet and 80 to ceiling. Manchester has over 200 churches, several of them handsome and costly.

The distance to London is 180 miles by the Midland, and the scenery in places is fine, but the view is much interrupted by tunnels. Whenever one is in raptures over a choice landscape the train never fails to dive into a hole or hide in a cutting. In Derbyshire, parts too hilly to plow are used entirely for pasture, the frequency of groves and individual trees giving it a parklike appearance. The country was in holiday trim and presented a picture of rural beauty rarely surpassed. Nearly every sort of vegetation sported some kind of bloom, while great trees were masses of pink or white. The hedges were alive with birds of many songs and varied colors; the highways were beautifully smooth, and being macadamized with limestone, the dust appeared like flour. Watching from a hilltop the long, frequent trains scudding through the valley, helped one to realize the business done in that small dominion; while the excellence of everything in its way gave an idea of lasting. For rural beauty, wealth and comfort, parts of England will confront the world.

Here by the Derwent is the Duke of Devonshire's beautiful mansion—one of the most lordly homes in Britain. Its walls are hung with choice paintings, and its halls contain the chiselled works of Canova and Chantry. The conservatory is thought to be unrivalled in Europe, even surpassing Kew gardens. The grounds are nine miles in circuit, and excelled in magnificence only by those of Versailles near Paris. Some half dozen miles south, at the base of wooded hills, with river in front, is Haddon Hall, residence of the Duke of Rutland. It is also a lordly home and planted among scenery of great attraction. The adjoining forest is stocked with deer, wild boar and smaller game. Near at hand the delightful village of Rowsley sleeps quietly in a lovely vale with groves and scattered trees, the surrounding hills capped with forest. A stream goes winding through, its banks gay with flowering shrubs and blooming verdure. Everything is neat to dissipation, and many homes have ivy mantles. The smallest cots have scarce room to breathe, so thick is flowers trained about them. Flowers in front, flowers to left and right—flowers scaling the walls and climbing the thatch. This is truly a sleepy hollow—no noise, no excitement, barring the music of birds and tattle of brooks. The sun is far on its way before anyone is stirring; then slowly and softly a thin column of smoke ascends; an occasional door is unbarred and steps are heard on

the gravel. Neighbors meet and exchange kindly words, and later the barefoot boy's whistle is heard in the lane, as he drives the cows to pasture. On rising ground, a short way from the village, stands an old-fashioned church with the tooth-marks of time on its turrets. No style, no steeple, no painted glass, no groined arches. To me the poorest chant would sound better in that dear old fane than the grandest symphonies, ramping and storming through great cathedral arches. Its very look reproves sin and a walk in it would do one more good than many a sermon. The small yard is thickly planted—tombstones extend to the door and under the tall grass slumber generations that successively prayed within its portals.

Matlock (a short distance away) is of greater pretensions—standing on the side of wooded hills and well known for mineral waters. It is a charming spot and largely infested with tourists. Derby is a nice inland town, with 60,000 people and 130 miles from London. Its chief industries are silk and cotton manufacture, the former having been started 170 years in the distance. From here the country is mostly level, with few points deserving notice. I arrived in the capital on Friday, June 17th and took lodging near the Midland depot. Next day was the winding-up of a review at agricultural hall, the magnificent affair being witnessed by royalty and crowned heads by dozens. On Monday there was unusual stir along the principal streets and progress was often interrupted. Every kind of conveyance from the huge dust-cart to the lordly coach with gilt arms and uniformed footmen, took part in the procession. But no one seemed annoyed or in haste—all took matters coolly as if they had left home to join in this street blockade. Habit reconciles us to annoyance, and I have remarked that English people are more patient than we on this side the water. After this miscellaneous collection had stood a quarter hour, some policeman would succeed in moving a team a foot or two backwards, when a general stir would ensue, to be again wedged fast in a few seconds. Without being painfully certain, I fancy the rate of progress could not have been slower than a half-mile in 60 minutes. It is interesting to watch from an elevation a mile of street packed in this helpless manner; but the interest suddenly drops when one becomes an actor. Those in carriages had time to feast on the decorations (for the jubilee to-morrow); but those on foot had to watch severely sharp to avoid collision. Having arrived at the marble arch (corner of Hyde Park), I stopped to witness the display on Rotten Row. This, let me inform the reader, is a

beautiful roadway through the park, a charmed circle, a chosen drive with the rich and great—the world of fashion. It was patronized by sovereigns centuries ago and on that account was called (in French) *route de roi*, of which Rotien Row is a vile corruption. One of the London sights consists in watching the thousands of coaches scudding along this thoroughfare from 4 to 7 p. m., any fine day in summer. The splendid outfits, fine horses with rich trappings constitute a scene of wealth and splendor unrivalled in any country. Light iron chairs are placed under trees inside the track, and the ten thousand spectators can rest comfortably and swap fibs while watching the tremendous tornado of beauty and fashion. Opposite the park entrance stands a heroic statue of Achilles, inscribed—‘By the Women of England to Arthur, Duke of Wellington and his brave companions in arms.’ It was cast from ordnance taken during the Peninsular war and cost \$50,000, raised altogether by women. Sight-seeing is not all picnic, and by 8.30 I arrived at my abode, hungry, tired and dusty.

The jubilee was not allowed to take people by surprise, and for weeks nothing was done but in some way connected. Great stands were put up along the route, and cautious people sheathed with boards the fronts of houses. Some stands were capable of holding 3000, and the most desirable seats were quoted at the alarming rate of 100 guineas. Window seats were let to spectators when the owners were not above ‘turning an honest penny.’ I was shown a window about four feet wide, said to have been let for £50 to view the procession. So far as I could learn individual seats ranged from £2 upwards, according to local advantage. Windows six storeys high found willing tenants while others viewed the show from roofs 130 feet from the gravel. A large tenement house, being vacant, was rented for £1000 during jubilee proceedings. This will show the stage of excitement to which curiosity had reached. On jubilee morning (June 21st) I turned out at 5, expecting to have a quiet look at the decorations before the crowd had gathered. Vain hope and misplaced expectation—for I found the route of parade filled and packed. About ten the police began the difficult task of clearing the streets. The sidewalks were solid, while lamp-posts and trees had each its tenants. Some carried boxes a foot or more long, neatly wrapped in paper. These at the critical time were placed under the feet and gave the owner a better view than he could purchase for guineas. An ambulance corps was kept busy, as many fell down owing to heat and excitement.

Ten thousand troops lined the march of parade, and military bands were at equal spaces.

At 11 a. m. the racket of guns told the procession had left Buckingham palace. 'They come! they come!' were the words and some turned pale with excitement. The line was composed of three sections, 13 state carriages in each, and a detachment of the Life-guards preceded. Besides these 16 officers of native Indian cavalry formed a body-guard for the Queen; and not a few of the dusky warriors had testimonials of brave deeds on fields of battle. The first section contained Indian princes with suites; the Queen of Hawaii with her attendants; members of European royal families and their suites. The second division contained the King and Queen of the Belgians; the King of Saxony; King of the Hellenes; Crown Prince of Austria; equerries and court officials. The third division contained, besides the Queen (who occupied the last carriage) the Duke of Cambridge, General Wolseley, three major generals, ten colonels, lieutenant-generals, majors, ladies of the bedchamber, lord steward, goldstick, grand dukes, princes and princesses. As on all state occasions, Her Majesty was drawn by six cream-colored horses, each led by a groom in gorgeous livery. Without being painfully exact, the procession was over a half mile in length, and viewed from a point of vantage, was a sight not forgotten.

Westminster Abbey was reached at 12, and that renowned fane seldom enclosed so much wealth and fashion. Two galleries above the altar were filled with ladies of rank, their costly outfits being beyond description. Every decoration, military or civic, was pinned where it would draw most attention. Archbishops appeared like meteors in crimson vestments; bishops and deans were robed as became their cleric status. Kings, queens, princes, lords, nobles; wearers of stars and garters, great officials of army and navy in their brilliant attire; municipal dignitaries in robes of office; heralds and court representatives of various ranks and conditions; eastern princes and shahs, their turbans ablaze with barbaric splendor. The uniforms of all civilized nations are said to be present except those of France and the American Republic. The ceremony was conducted by the Archbishop of Canterbury and lasted about 40 minutes. It was chiefly musical and of course impressive.

After leaving the Abbey the procession returned in the same order, though the route was to some extent varied. The distance each way was three to four miles and the display was considered fine by standard judges. Fancy 10,000 troops in uniform and

for a distance of four miles, sidewalks, stands and windows packed close with people. Life-guards in their showy uniforms, white plumes, metal helmets and breastplates shining like the precious metal; these handsome fellows mounted on magnificent steeds with rich trappings. Some 40 state carriages, drawn by splendid horses covered well out of sight with gold and purple—drivers and footmen weighed down with lace and tinsel; while the freight consisted of the world's highest in rank and wealth, their vestments ablaze with costly stones and precious metals. As the Queen's carriage passed a continuous cheer went up from the millions on each side the street, while hats and linen fluttered like forest leaves in a tempest. This display of attachment the Queen rewarded with bow and smile; and as each trip occupied an hour, a smile of 60 minutes, with one nod per second must have been irksome. It will thus be seen that royalty has its days of fagging toil like meaner people. On jubilee morning the Queen was presented with a bouquet of orchids, six feet by seven and valued at 300 guineas. In the evening a garden party was given at the palace to which 5000 were invited; and on the following day 26,000 school children had a picnic on a grand scale in Hyde park. At night the illuminations exceeded description and hundreds of thousands remained on the streets to watch them. Rockets ascended in every direction and bonfires on surrounding hills illumined the sky. Next morning 'The Times' had 30 of its wide columns filled with jubilee proceedings.

* * *

The town of Windsor is 22 miles west of London and has about 12,000 people. Its revenues consist mainly of court pickings and extortions from tourists. Summer visitors are frequent, and whatever favors they require are marked at fancy prices. The river is spanned by a handsome bridge, across which stands Eton with some 3000 people, chiefly famed for its college. Windsor Castle is the usual residence of British kings, standing on a hill near the Thames. William of Normandy is thought to have been the original builder, but the claim is disputed. Successive kings have for centuries been adding to the pile, so that little having claims to antiquity remains in existence. The enclosed grounds are about 12 acres and to east of the castle is Frogmore park, containing the tomb of Prince Albert. To this shrine the Queen makes frequent visits, and the public are allowed in once a year—on the 14th of December. From the castle front a magnificent avenue ('the long walk') extends three miles through the great park. It is about 80 yards in width, has

a double row of elm trees on each side, with marble tablets showing the date of their planting. On a hill at end of the long walk, three miles from the castle and right in front of it, stands an equestrian monument to George III. Several miles beyond is Virginia water, a beautiful lake bordered with rhododendrons and surrounded by mock ruins. The great park is 3800 acres in extent, 18 miles round and abundantly stocked with game. Beyond it lies Windsor forest, 50 miles in circuit.

The castle consists of three groups—the eastern contains the living rooms which are rarely seen; the middle group contains the round tower, rising 300 feet above the river; the western consists of St. George's chapel and Albert memorial hall. To the state apartments (ten in number) visitors are admitted during absence of the court, in the following order: The audience chamber, hung round with Gobelins tapestry; the Vandyke room, so called from having 20 works by that artist; the state drawing room has paintings by Zucarelli; the grand vestibule has a heroic statue of George IV.; the state ante-room has a handsome ceiling painted by Verrio; the Waterloo chamber is frequently used for state banquets and contains 20 of Sir Thomas Lawrence's best works; the grand reception room is supremely gorgeous, and has Gobelins tapestry, with figures from Greek mythology—also a superb malachite vase presented to the Queen by the late Czar Nicholas. St. George's hall (the throne room), 200 feet long by 32 in height and breadth, has its ceiling decorated with the arms and insignia of the garter knights. On its walls are pictures of English sovereigns from James I. to George IV. The throne stands in the east end and is superbly gorgeous—covered with red velvet hangings, adorned with rose, thistle and shamrock. On occasions when the Queen takes her seat here, habited in vestments, at a dozen times her own weight in gold of 20 carats. The grand chamber contains arms and armor arranged like one sees in the Tower. An interesting object is a piece from the foremast of Nelson's ship 'Victory,' pierced by a cannon shot at Trafalgar. It now forms a pedestal for a colossal bust of Nelson by Chantry. Also a bar-shot that killed eight of the 'Victory's' men in the same battle; a chair made from an oak beam from Kirk Alloway; another out of an elm tree from the field of Waterloo; an anchor and two guns recovered near the coast of Scotland, supposed to have belonged to the Spanish armada; King Coffee's umbrella, and a variety of other trophies and curios. The presence chamber has ceiling painted by Verrio and walls hung with Gobelins tapestry, representing scenes

from the history of Esther. The audience chamber has ceiling and walls as the last and contains a full-length picture of Mary Queen of Scots, with several fulsome inscriptions in Latin. There is also a picture of William Prince of Orange (father of William III.) married before reaching 15, his wife (daughter of Charles I.) being in her 11th year. He died at 24.

The western and lower section contains St. George's chapel and Albert memorial hall, style what is known as florid gothic, extremely rich and expensive. In the former are buried many English sovereigns and members of royal families. On each side of the choir are rows of stalls or seats of carved oak, black as ebony and apparently as solid. Above each stall is a sort of open-work or cage surmounted by crown, crest, sword and banner belonging to some particular knight, whose titles are engraved on a plate of metal. Knights of the garter occupy these seats at installation of new members, and on other grand occasions. The chapel contains a remarkable monument to princess Charlotte in two groups. In one the princess is represented as if she had thrown herself on a bed and expired—a cloth having been thrown over the body. The outline of the figure is perfectly distinct, and the folds of the sheet are true to nature. Four figures with bowed heads and covered with drapery are sitting around in attitude of despair. Above the group rises the princess on angel's pinions, her drapery floating behind as she ascends—two angels accompanying, one carrying the infant child. The monument is by some considered in questionable taste—perhaps so. As work of art I consider it a triumph. Near by, a mural tablet records the death of Alamayo, son of Theodore late king of Abyssinia.

The outlook from the tower is varied and attractive—no mountain, lake, sea or canyon—simply a landscape garden on a scale somewhat extensive. In the foreground rise the gothic pinnacles and spires of Eton; farther away white spires and gray towers rise seemingly out of the forest, indicating that a town, village or hamlet lies there hidden. Lovely villas and country seats bask on frequent hillsides, or peer out from green foliage—verdant meadows, dotted with charming groves and single trees, interspersed with waving cornfields. Here and there a loop or stretch of Thames river gives variety to the picture. The more distant parts are gradually obscured by the neutral haze so characteristic of British weather.

Hampton Court is an interesting old cage near the Thames,

a dozen miles from the city. Originally it was put up by Cardinal Wolsey; but the present mass consists largely of additions. It covers more than six acres of ground, with square court in the center—material, red brick with stone finish. Externally it is a plain hulk with no architectural expression; inside, the great hall and king's stairway are the chief attractions—the former 127x23 feet and 60 in height. The ceiling is one of the richest of its kind—not gay with paint and gilding, but with corbels of oak. The walls are hung with tapestry about four centuries old; each piece nine yards long and representing a scene in the life of Abraham. The stair is of easy grade and lordly aspect. The thousand or more pictures scattered over the 32 state apartments were painted by some 300 men of various schools and countries. The ceilings of many rooms were painted by an Italian named Verrio and are quite handsome. Among noted pictures is one representing the meeting of Henry VIII. and Francis I. on a field near Calais, called from the magnificence of display 'the cloth of gold.' Henry's tent was of golden cloth, and two gold fountains on the lawn sent up wine in place of water. The court beauties of Charles II. and William III. are shown on canvas; the state bed of the latter king is hung with crimson damask, and that of his queen with crimson velvet. In another room the state bed of queen Charlotte has drapery of lilac satin, while the ceiling represents night and morning. Chairs, ottomans and beds have pardonably faded, and on each the industrious tooth of time is quietly working. In the guard chamber swords, guns, pistols and bayonets are formed in figures, as seen to greater advantage in the Tower. Room 32 contains portions of Nelson's flag-ship 'Victory,' in which he won the memorable battle of Trafalgar. From time of Henry VIII. to George II., Hampton Court was an occasional home for British kings; it is now a roost for decayed lords and persons in receipt of court pension.

The astronomical clock is one of the bears of Hampton. It was built in 1540, and after centuries of use, got out of repair, was removed from its place and hid in a closet. Some dozen years ago a decree went forth that the old clock be put to rights and restored to use and honor. The works were found eaten with rust and a new one was made after the original model. All that now remains is the ingenious and elaborate dial, composed of three discs, the largest, in diameter, seven feet. By skilful contrivance the hours, days, months, motions of the sun and moon are represented. A grape-vine planted in the garden 120

years ago, is thought to be unequalled in fruit and dimensions. The trunk near the ground is 30 inches in girth, occupies a glass-roofed house over 100 feet long, but much too small for this giant producer. In a good season it bears 1500 bunches of as many pounds—a fair load for an average donkey. The fruit is pronounced superior in kind and is reserved for 'the Queen's most excellent majesty.' A row of nine elm trees extend along the river front, one of which succumbed to natural decay and became hollow. The opening (some two feet by five) was long ago neatly filled with brick, and in this way the tree was saved from destruction. In early life I read of the occurrence, and on arriving at Hampton my first concern was to look after the doctored elm. But trees similarly treated are not rare in America and Europe.

The grounds attached to Hampton Court are said to be five miles in circuit, well stocked with deer and other creatures. Near the palace they are laid out in lawns, gravelled walks, fish ponds, water courses, terrace, statuary and flower beds. The site is tame and flat without natural features, except fronting the stream. The maze, tho only a quarter acre in extent has half a mile of walks, so arranged as to amuse largely the younger people. A magnificent avenue of great chestnut trees leading to the palace has few to match it. Six parallel rows extend along each side, in tiers straight as sunbeams. The grounds are a favorite resort for picnics and are used for that purpose on most any fine day in summer. The greatest number of visitors on one day goes beyond 26,000, the yearly number falling short of 350,000. The palace is about 200 yards from the river, here spanned by a fine bridge, at the opposite end of which is Hampton village, with a population of 5,000. I have not attempted to give anything like details, as books more bulky than mine have been written about this cage of royalty, nest of intrigue and seat of crimes.

Cardinal Wolsey who founded this pile was one of the most extraordinary figures that appeared in European annals. He was born in humble sphere, educated at Oxford and before reaching mid-life wielded a power greater than monarchs. After leaving school he became tutor to a nobleman's son, and from that to Lymington rectory. Next he became chaplain to Henry VII., and successively dean of Lincoln, canon of Windsor, privy councillor, dean of York, bishop of Tournay, bishop of Lincoln, archbishop of York, cardinal, lord chancellor; had power to create knights, counts palatine, apostolic notaries; became the

Pope's legate and was twice candidate for the papal chair. He had power to confer degrees in art, law and physic, while dispensations of every sort were at his finger ends. In Britain he exercised the prerogatives of sovereign pontiff, besides directing all important affairs of state. For seven years he and king Harry ruled the country, without consulting lords or commons, till in 1523 they asked one-fifth of each man's possessions. Cavenish, a gentleman usher, put on record the Cardinal's household arrangements, showing his scale of living to surpass that of monarchs. When residing as uncrowned king at Hampton his retinue consisted of about 1000 persons; and he used to boast of being able to entertain 300 guests and give each a silken bed. Europe contained only one who rose above him in affluence and power—namely, the Pope. There is no question as to Wolsey's commanding talents and far-seeing policy; but his ambition was boundless, with arrogance to suit. When at his best, with Henry VIII. playing second fiddle, his favorite expression was, 'I and my king.' But offending the burly monarch in one of his courting rackets, this great Sennacherib was, one by one, stripped of his honors, arrested for treason and on his way to London taken ill at Leicester, where three days after he breathed his last.

My next trip to London was by one of the western routes, starting from Liverpool on May 13th. The day was mild and warm, with great heaps of somber clouds and occasional spells of sunshine. The scenery was lovely—the whole country appeared like a garden, so clean, well-kept and cultured. Winding streams were frequent, bordered with willows, bunches of trees and patches of forest. Early variety of trees were in full leaf; others in a stage less forward. Apple, pear and cherry were masses of pink or white; nurseries and often whole fields were ablaze with flowers the most attractive. Meadows were spangled with daisies, dandelions and buttercups—wild flowers along the track—furze and lilac in blossom. Grain fields were showing green, and work in that line appeared finished. Trees and hedges were vocal with birds of song—rooks were having a say after their own fashion. Well-fed kine lay on sloping banks, under spreading trees, stood in pools or drank from rivulets. Station, track and train were in the best condition, while every stop and start was true to time as clock-work. The passengers were well-clad and well-preserved, with an air of ease and comfort. The very landscape declared that peace and content reigned within that small dominion; and with the enthusiast of other days,

one felt like exclaiming—'Dear old England! with all thy faults I love thee.'

After leaving Chester, Crewe is the first place of importance. It is the center of extensive railway works and is justly called England's railroad town—that industry having raised it from a mere village to a place of 50,000 people. Fancy 300 trains daily passing through a depot—that's at Crewe. After skimming 40 miles and skipping larger places, we come to Rugeley. This village of small note came into prominence 36 years ago, owing to the ill-deeds of a Dr. Palmer, who found that money could be made by insuring the lives of persons, then removing them by poison. But the trick was discovered; Palmer was imprisoned, and after a trial of two weeks, was declared guilty and hanged at Stafford, in June, 1856. In connection with this affair a small mean joke is recorded which may bear repeating. A few days after Palmer's death, Lord Palmerston was passing through Rugeley. Learning in advance of his coming, a deputation waited on him, explaining that Rugeley had got into bad repute on account of Palmer, and to remove the odium, they had decided to change the name—would His Lordship suggest something fitting? The statesman's thoughts must have been clustering round his noble self, for with cheerful briskness he replied—'Well gentlemen! suppose you name your town after me and call it Palmerston!' Few instances are on record of piling upon injury such cruel insult. The deputation withdrew with bowed heads, and needless to add the station front still bears the obnoxious word—RUGELEY.

Wolverhampton with about 20,000 people is capital of 'the black country' and center of the coal and iron district. Its annual output of finished iron, steel and brass is reckoned somewhere about a million tons—a quantity almost incredible. For miles the railway passes through a continuation of mining towns and villages; the air is thick with smoke and great heaps of refuse are on every hand. Tall chimneys pour their inky offerings into the upper blue and great furnaces give out volcanic fires. Birmingham, 113 miles from London, is well named the toy-shop of Europe; for scarcely anything that can be made from iron, steel or brass, but is manufactured. It started early in the steel-pen trade, and now 20,000,000 weekly are said to be turned from its various work shops. For an old-country town, its growth has been rapid—its present population being 500,000, or about the size of Boston. The town hall has a seating capacity of 3,000, and its organ is among the best in Britain.

Birmingham is a busy spot, and it is said that 450 trains daily pass through its depot.

We are now in Warwickshire, a beautiful interesting country. Here is Kenilworth castle, founded some 800 years ago and rated the most extensive ruin in Britain. The material is red sandstone, resembling a good deal that found in this province. In 1256 it stood a six-month siege, and some of the stone balls thrown by engines are seen about the structure. In 1563, Elizabeth gave the castle to Dudley Earle of Leicester, who repaired it at much expense. The Norman keep was 100x80, consisting of four towers connected by walls 16 feet in thickness. The highest part of Caesar's tower is 90 feet and commands a good view of the country. Till about 60 years ago the place had been a quarry from which people carried stones to mend stables and dykes; but now tourists are let in at a shilling per head, and from his exact description, one would suppose the guide had helped to lay each stone in position. Here are shown the fosse, portcullis, guardrooms, sallyports, cells, loopholes, banquet hall, and not the least important, a fireplace in which an ox whole could be roasted. Not a few of these are imaginary; but as the visitor has bought a book and paid for attendance he may as well not be too skeptical and take the worth of his money. One of the towers is covered with ivy, the main stock being fully the size of a person's body. Think of that ye who fancy ivy to be a mere weedling. The ruin is worth a visit and would be more enjoyable if one were allowed to cruise round by himself and not be harassed with help at every turn.

The town of Warwick is next on the program. When Domesday book was compiled (over 800 years ago) it contained 260 houses, and was before that time a royal borough. It is chiefly of note on account of its castle, one of the finest baronial homes in Europe. The present pile dates back 550 years, but it has since undergone changes. Twenty years ago a large section was destroyed by fire, together with valued contents; but the part has been restored at cost of some \$90,000. The grounds are enclosed with high, thick walls, and entered through ponderous gates at which a uniformed porter is always watching. A roadway about 100 yards long and cut a dozen feet into the rock, leads from gate to castle. The moat is dry and clothed with verdant beauty; the drawbridge passed, a step farther and we are under the portcullis, with great, rusted teeth. The tourist is now taken in charge by an official heavily striped with gold, who hurries through with inconvenient haste. The great hall is

62x40 feet, with richly carved gothic roof. On the floor is spread the skin of a huge tiger, its glassy eyes staring towards the entrance. On a sled before the great fireplace is piled a heap of wood; and near by is Guy Warwick's porridge pot, holding about 90 gallons. The walls are hung with lances, corslets, shields, helmets and complete suits of armor—the helmet of Cromwell being among them. The red drawing-room contains paintings by Reubens, Rembrant and Vandyke; old cabinets, urns, clocks and vases; also a marble top inlaid with precious stones and lapis lazuli, said to have belonged to Marie Antoinette, the beautiful queen of France. The cedar drawing-room (44x25 feet) has a marble chimney piece said to have no match in Britain; also a top inlaid with lava from Vesuvius, Etruscan vases, pictures and rare things. The ceiling of the gilt drawing-room is extremely handsome, and the walls exhibit pictures by Vandyke and others. The state bedroom is hung with tapestry made in Brussels 300 years ago, the figures supposed to represent the gardens of Versailles near Paris. The bed, with fringes of crimson velvet, belonged to Queen Anne and was presented by her to the Grevilles. The armory is set off with weapons from most parts of the globe, arranged in artistic figures. The chapel has stained-glass windows and relics of old time found about the place. In the conservatory is the Warwick vase said to be the largest in existence. It is of white marble, five feet high, about six feet across and holds 136 gallons. It stands on a pedestal and is in shape of a shallow bowl, with looped handles.

The castle stands on the brink of the winding Avon, and is surrounded by lovely parks. A giant cedar of Lebanon rears its head against the walls, its seed said to have been brought home by crusaders in the 11th or 12th century. The grassy slopes and sylvan glades are dotted with great beech, oak and pine—the trunk of one I measured being over 15 feet in circuit. On a lovely wooded slope across the river a company of youth and maidens were enjoying a fete, with dances, swings and gambols—in other words having a picnic. The founding of Warwick castle is obscured in historic mist, and the occupants have held at one time or other every good position except the throne. The family thrice became extinct in direct line, and were kept up through collateral branches. The leading names were Beauchamp, Neville and Greville. It was Richard Neville (Earl of Warwick who flourished 430 years ago) that turned Henry VI. away and placed Duke of York (as Edward VI.)

on the throne. The latter not giving satisfaction, was in turn deposed by the doughty Neville. The present owner is George Guy Greville, Earl of Brooke and Warwick.

The town (with 12,000 people) spreads along the side and top of a hill; and in ascending the principal street a gateway of the old wall is passed, looking ancient as the arch of Titus. Near the courthouse stands an old-fashioned place with a tablet stating that Thomas O'Ken dwelt there and was good to the poor. O'Ken flourished in the 16th century, but his memory is preserved by a yearly celebration, called O'Ken's feast. The burgesses attend church 'to hear a sermon and pray for the souls of Thomas O'Ken, his wife and all good Christians departed.' The feast follows, the whole business being done in accordance with O'Ken's 'last will and testament.' The collegiate hospital founded in 1571 will interest the tourist. It was intended for 'a master and 12 brethren,' old soldiers from the town and parish. By some curious freak these ancient duffers are required to wear short, blue cloaks like students at Oxford, and a kind of silver badge. The building is over 500 years old and contains a chapel in which 'the brethren' daily assemble for worship. In September, 1617, king James I. was entertained there by Sir Fulke Greville and a great tablet on the wall states the fact; while a chair on which the pedant sat is preserved as a valued relic. An Egyptian urn in the garden is said to have been part of a water measurer on the Nile. St. Mary's church dates from before the conquest, has a handsome spire, with ten bells in its tower. Leamington, a few miles off, is a clean handsome city with mineral springs, fine public gardens and a favorite spot with tourists. Horse-cars run between it and Warwick.

Stratford is nine miles off, a quiet old-fashioned town with 6000 people and formerly the home of Shakespeare. The house consists of a lower room, floored with stones a good deal broken. It has a wide chimney, and a rude stair ascends to a low-ceiled room with plastered walls in which (1564) the king of dramatists first drew breath. The walls are so covered with names that no amount of skill and patience could add another without intringement. Here are the names of every modern genius, besides those of kings and princes, great men and nobles, rich men and poor. Barnum over 30 years ago wished to purchase the house, divide it in sections, ship it to New York and there rebuild. The town authorities learned of the venture just in time to frustrate the showman's scheme; otherwise admirers of the bard would now turn their faces to Gotham. In a beautiful

church nicely placed among limes by the Avon, lie the remains of Shakespeare, his wife and daughter. The inscription (known to most readers) is scarcely what one would expect from a master genius. Without following the 16th century spelling, here it is:—

'Good friend, for Jesus' sake forbear
To dig the dust enclosed here.
Blessed be the man that spares these stones,
And cursed be he who moves my bones.'

It is stated that in digging a grave alongside, a clumsy sexton broke into the poet's coffin and saw the remains, but was deterred from molesting by the imprecation above. Next is the tomb of his favorite daughter Susanna, who from the long inscription must have been a superior woman. His wife (Ann Hathway) is buried near—they are all in the chancel. From the slight notice in his will, it is conjectured that (like most literary genius) he did not enjoy happiness at home. This is only a surmise, however. The family tree failed to take root: Susanna (Mrs. Hall) had only one daughter, who after being twice married, left no issue. His daughter Judith had no offspring, and his son Hamnet died at eleven.

The small town of Banbury calls up far-away recollections of juvenile classics. From here some 25 miles to east brings to Northampton, with 60,000 people. This old place figured much in English civil wars, was noted for many councils held there and for its redoubtable castle. It once had a university and several parliaments met there. In a village church not far off, an inscription on brass marks the tomb of Laurence Washington, twice mayor of Northampton (1532 and '45), while a shield in the pavement shows the stars and stripes to have been the family arms. A great-grandson emigrated to Virginia in 1657; and *his* great-grandson became in time the 'father of his country,' to whom citizens paid the loud homage of adopting his family arms as national emblem of their new republic. Bedford is of small interest except that John Bunyan wrote his allegory in its jail. A monument to the great dreamer was erected here in 1874. Bedford has about 18,000 people and some manufactures. The town sewage is made to fertilize an extensive farm near the city.

Oxford is 63 miles north-west of London and has about 35,000 people. As we associate Manchester with cotton, so Oxford starts the idea of classic lore; even so far back as the eighth century the town was rated an ancient seat of learning. King Alfred resided in it, and Harold was crowned and died there.

The town is situated at the junction of Thames and Cherwell, and is nearly surrounded by these streams. (The Thames here is called *Isis*—a name taken from Egyptian mythology.) The university which forms so important a feature, consists of 21 colleges and four halls, each being a complete establishment with its professors, students, revenues and regulations; but all are united under the university of which they form members. The following list gives the names with supposed date of their founding: University, 872; Baliol, 1268; Merton, 1274; Exeter, 1314; Oriel, 1326; Queen's, 1340; New College, 1386; Lincoln, 1427; All Souls, 1437; Magdalen, 1456; Brasenose, 1509; Corpus Christi, 1516; Christchurch, 1546; Trinity, 1554; St. John's, 1555; Jesus College, 1571; Wadham, 1613; Pembroke, 1624; Worcester, 1714; Hereford, 1822; Keble, 1868. The halls are—St. Edmund, 1317; St. Mary, 1333; New Inn, 1438; St. Alban, 1546. The colleges are manned by 36 professors and about 100 tutors, their pay ranging from £50 to £900 a year—the Sanscrit professor receiving the highest figure. The principal difference between halls and colleges is that the latter hold charters, the former do not. In one case the head teachers are styled professors; in the other, principals. In attainment of degrees and university privilege, no difference exists between hall and college students. The whole number is usually about 3000, giving an average of about 150 to each—the highest 250, the lowest 50.

Christchurch was founded by Cardinal Wolsey and surpasses all the rest in magnificence. Its street front is 400 feet long, with circular tower in which is hung the famous bell—'Great Tom of Oxford.' It weighs eight tons, and is tolled at 9 p. m. as signal for closing the gates. Magdalen is noted for the beautiful proportions of its tower, admitted to have no rival in Britain. The divinity school is a hall of wonderful magnificence, used at examinations for university degrees in divinity. The groined arches and bosses composing its roof are rarely surpassed. The new examination schools for the university (opened ten years ago) is a handsome and showy building. In St. Mary's church Wyckliffe preached against the errors of his day; and to it Cranmer, Ridley and Latimer were cited in 1554, to dispute with the divines of Oxford and Cambridge anent the communion. Methodism claims Oxford as its birth-place, and in 1878 was opened Wesley's memorial chapel, built where formerly stood a house in which Wesley preached. Baliol college was founded by Sir John de Baliol, father of the Scottish king of that name. Near it stands the martyrs' monument, about 100 feet

high and a magnificent work of art. It was built in 1840 in memory of Thomas Cranmer, Nicholas Ridley, Hugh Latimer, prelates of the English church, who were burnt here in 1555-6.

In Oxford museums is preserved king Alfred's jewel and the sword presented (in 1514) by the Pope to Henry VIII. with the title 'defender of the faith.' The bull conferring the title is in the British museum, and also a copy of Henry's book which gained the Pope's favor. In the Egyptian collection is shown a limestone tablet (time of Sethes, B. C. 4,700) inscribed with hieroglyphics and probably the oldest bit of sculpture in existence. The Bodleian library (founded in 1445) contains 240,000 books, besides 20,000 manuscripts and literary treasure. Here can be seen the exercise-books used by Edward VI. and queen Elizabeth when children; also the lantern Guy Fawkes carried when apprehended under the house of commons on November 5th, 1605. The university press is a widely-known institution. In a room 200x70 feet and other rooms adjoining, 50 presses and five ruling machines are constantly working. The establishment produces its own stereotype, printing ink, roller composition and operates a type foundry. It is said to possess fonts over 200 years old, and is rated the most perfect printing outfit in the world.

The botanic garden is beautifully placed—on one side the smooth-flowing Cherwell, fringed with great trees, their branches trailing deep in the water; on the other, college foundations, seemingly old enough to rival the stone-heaps of Gizeh. The Thames (*Isis*) is lined with barges, supplied with every convenience for students who have rich fathers and love aquatic sport. During lent and summer terms the college eight-oar races come off, when about 50 crews compete for the glory which Englishmen attach to development of muscle. Needless to say, these races draw great crowds and are extremely exciting. The surrounding country is pleasant in summer, varied with hills and patches of forest. The building material is sandstone of warm drab color, is easily dressed and looks well but doesn't stand the weather. On this account the place looks unduly ancient, and a building a few centuries old might pass as rival in years to Birs Nimrod.

WALES AND IRELAND.

Some time in July I set out for Wales and Ireland; but a naval review coming off at Portsmouth on the 23rd, I had to hasten back without seeing much of either country. From London

westward the route is tame and devoid of interest. Bath, 106 miles west of London, is the first place of importance; the town derives its name and income from mineral springs, for which it has long been noted. It was a favorite place with the Romans and numerous remains of their works have been discovered. It rises like an amphitheater from the winding Avon and the hills above are finely wooded. It has grand old churches and parks, while six handsome buildings are connected with the mineral waters. Its population is about 60,000, and as summer resort, it ranks first in Britain. Ten miles from Bath brings to Bristol, also on the Avon and eight miles from its mouth. The city is unevenly placed on seven hills, there being 300 feet difference of level between highest and lowest places. The newer parts are regular and handsome, but in the old town streets are narrow. Bristol, with ^{200,000} 20,000 people, ranks third among English seaports—about 5000 craft clearing from it per annum. Early this century an artificial harbor was constructed at cost of \$3,000,000, capable of holding a thousand vessels. The place has besides, some two miles of quays and some excellent docks. Bristol cathedral ranks among the finest in Britain, and Redcliffe with its handsome spire is rated the best parish church in England. The place has important manufactures, great engineering works and shipbuilding. Bristol had some desperate riots in its time—the bridge riots in 1793 and the free-trade riots in 1831 being the most excessive. In the latter 500 persons are said to have been killed and 100 houses demolished—the mansion house, bishop's palace and prison among them. Cabot the navigator, Chatterton and Southey, poets, Bowdich the traveller and other noted men were natives of Bristol. At Clifton (a fashionable suburb) the Avon is crossed by a suspension bridge 700 feet span and 240 feet above high water. It formerly crossed the Thames between Waterloo and Westminster, and was transferred to its present site in 1860.

The Severn tunnel (some 20 miles north) is the next object of interest. It is $4\frac{1}{2}$ miles long, $2\frac{1}{2}$ of which are under the river. The width and height are 26x20 feet, and the lining (of vitrified brick) is 30 inches. Work was begun in 1873 and in 1887 the tube was opened for traffic. The difficulties were of no ordinary kind and nothing but pluck, skill and sovereigns could establish the issue. When the borings were within 120 yards, a land spring was tapped which in less than a day flooded the works. After untold trouble, great expense and loss of time the spring was stopped. Next a hole ten feet wide broke

through and stopped the business. This after immense labor was overcome. The borings were connected in 1881, and by advice of a new engineer the rails were lowered 15 feet to leave greater thickness under the river. In October, 1883, the former spring broke through, flooding the works about an inch per minute. This was the worst yet, but the difficulty was finally upset and the excavation cleared by machinery of greater power. Next a tidal wave descended the shafts and flooded a section; this however was not a serious matter. A dozen pumps were in use, average diameter 34 inches and capable of raising some 40,000 gallons per minute. In mid-channel, there is 55 feet at low, and 86 at spring tide. The undertaking was no small affair and cost the great western railway over ten million dollars.

Newport with 30,000 people and about a dozen miles from the Severn, is the next place of importance. It stands on the Usk, four miles from its mouth, has large shipping trade and spacious docks. In the neighborhood are extensive collieries and works in iron and tin. Newport has an old castle, now converted into a brewery. A dozen miles west and we are in Cardiff, at mouth of the Taff, with immense trade in coal and metals. By improved machinery vessels are laden with coal at rate of two tons per minute; and its docks (100 acres in extent) were made at cost of one million sovereigns. The growth of the place has been remarkably fast, and it has now about 100,000 people. Cardiff castle (once a noted stronghold) was erected in 1080. Swansea is an important trade center, 40 miles west and facing Bristol channel. It has numerous docks, immense trade in iron, steel, brass and spelter—its copper works being rated the first in Britain. The town is built at foot and along the side of a hill, the western parts being ^{clear} and attractive. Four miles to south, a narrow ridge extends eastwards, known as 'the Mumbles,' on the point of which stands a signal station and lighthouse. Between the Mumbles and Swansea are the ruins of Ostermouth castle, dating from the 11th or 12th century. Swansea has large shipping and ship-building trade; its population is about 68,000. Llanelly (half-dozen miles west) is a seaport with 16,000 people; has four docks, extensive works in copper and lead, and for its size more tall chimneys than ever I counted. Farther on is Caermarthen, of note in past ages. It was the birthplace of general Picton, who gloriously fell at Waterloo in defence of his country.

My next stop was at Tenby, a small watering place on the south coast, and a favorite spot with tourists. It is built on a

cliff, and hotels a few yards from the edge have steps cut down to the water. Its bathing facilities are unsurpassed and the place is largely used for that purpose. An ancient wall of unknown date winds through the town, and old castle ruins are on a point jutting into the bay. On a rock a few hundred yards from the shore, a fort was lately built, mounting nine guns and garrisoned by a quarter dozen. As the harbor is shoal, the work resembles the fifth wheel to a carriage. A traveller who may have spent weeks among the wonders of Rome can find much to interest him at Tenby. South Wales is little calculated for farming, but its mineral resources are important. At night furnace fires are blazing on every hand and the air at noon is dark with smoke from smelting works and foundries. The scenery is no way fine, but the frequency of hamlets and houses nestling among trees is most attractive. All houses being severely white, look delightful among green foliage. What I saw of the Welsh people favorably impressed me. They are kind, industrious and clean to the last scruple. Being hay-making time, it was not unusual to see half-dozen persons (mostly girls) in a field swinging hand-rakes. Fieldworkers all stop and wave their hats when a train is passing; and being an orphan and alone, this show of friendship in a strange land was well accepted.

Two steamers ply between the southwest corner of Wales and Waterford in Ireland—distance 110 miles. The town is built twelve miles up the Suir, apparently a mere creek, but with some 40 feet of water. Waterford with about 22,000 people, is rather a nice-looking town, with interesting ruins and fine scenery at short distance. In front of a large hotel I noticed a sentinel on duty, and in passing I inquired why the house was protected. 'I dare not speak to you,' he whispered; but I afterwards learned that a judge from Dublin was staying at the hotel. I thought this was going too far in a place seemingly quieter than Oxford; and I felt that were I a Waterford boy, I would try to set off a grenade under his honor's cassock. Most of the country from Waterford to Killarney looks extremely wretched; the soil is so hard, rocky and divided into such minute sections as to make farming (as we understand it) a mere burlesque. Yet I understood that six dollars a year rent was paid for the worst of it. From what I saw it appeared evident that the money on which Irish rentlords revel in foreign land is earned in America and sent home by sons and daughters. The dwellings are mere huts and a horse is rarely seen—donkeys and goats being the pre-

vailing cattle. The poverty of the country could be inferred from the fewness of stations; and when the train stopped there was no freight to deposit. The local constabulary (said to be 12,000 strong) are seen at all places; they wear black uniforms, carry short guns and travel the road at night, watching for 'moonlighters' and evildoers of whatever society or color.

The town of Killarney is two miles from the lakes, has 3500 people, a handsome cathedral, an Episcopal church and is supported entirely by travel. On arriving at the station one is attacked by bummers with a tragic fierceness nowhere surpassed. Each hotel has an outfit of cars, boats and guides for the public, and the man who attempts lake-seeing on his own account will secure bought experience. The fraternity of guides is aggressive and keen in all parts, but for petty annoyance the Killarney crowd deserves premium. The largest lake is five miles long and covers 5000 acres; the next in size, 680 acres and the smallest, 430. The largest has several islands; one (Innisfallen, 20 acres in extent) has ruins of a monastery and two holly trees said to be the largest in Britain. The island is well wooded, a very gem for holding picnics, except that a vicious kind of fly makes one's stay a sharp battle. Killarney lakes would attract small attention, were it not for their setting of mountains, rising from 1000 to 3000 feet. On a clear day the view from their tops is delightful. Besides other attractions, some dozen peaks are in sight, resembling a stockyard on a massive scale. There are beautiful drives along the lake margins, and two days are needed to do the thing justice. Muckross abbey is a picturesque ruin with green ivy mantle—viewed by moon-light, it surpasses description. A handsome yew in the courtyard extends its limbs equally beyond the four ramparts; while ancient stones in the cemetery alongside have names that once stood high in Irish story. Ross castle is another delightful ruin, with ivy tunic of latest cut. The program includes a row on the lakes, and at a certain point Charon disturbs the echo with his bugle. Shortly after my return I read in a London paper that an American tourist, seeing this, fired his revolver; but the echo had scarcely quit laughing when he found himself in a guardroom to meditate on his folly. The pass of Glenloe is a dark, savage gorge where a rivulet works itself into fury among the wreckage. At the entrance stands a cottage said to have sheltered the famous beauty Kate Kearney, now occupied by her reputed grand-daughter—inheriting the cottage and name but never a tint of the beauty. Here one gets blessings enough for a dime to float a wrecked steamer, were

the blessings effective. In doing the lakes I had my first experience of the jaunting car, which for short journeys in good weather is excellent. It is a one-horse vehicle with two wheels, and carries four besides the driver.

At leaving, the head waiter accompanied me to the station. He was a smart young man in cleric black, white tie and extensive show of linen. I, in Canadian tweed, almost felt that he compromised his rank by walking with me. 'I suppose (said he) you think I get fine pay here in the hotel.' 'I certainly think you should (was the reply), seeing that you pretty much run the business.' 'Well (he said) I don't get a penny except what you and others give—not one penny.' He informed me that hotel waiters and porters, as a rule, received nothing except what they got by tipping. Besides the scores who solicit alms owing to indigence or age, a still greater number beg by virtue of their position. Not only so, but in some instances waiters pay an admission fee to the hotel for the privilege of allowing them to work for nothing. I don't mean to say that tipping is more general here than elsewhere—it exists throughout Europe. The system is contemptible and tourists from the western world should make a point of patronizing no hotel where it is in fashion.

An institution is good or ill according as it effects the country. The system of renting land in large areas is radically wrong because its effects are injurious to the people. I have always thought that Irish landlords were the principal cause of that country's unhappy state, and I had no reason to change my views on mingling with its people. No country could prosper while rents are increased according as the tenant makes his holding of greater value. The system lays a ban on industry and offers a premium to negligence and want. No measure is better calculated to reverse the wheels of progress and bring down a land to barbarism, or some such condition. Turkey is ever on the downward grade because the industrious man is fleeced by law, while his neighbor, living mostly by begging and theft, has nothing on which the taxgatherer can levy. Again, it is scarcely too much to say that Ireland under its present sway is far too much governed. Many of the laws fit the national disposition about as well as winter clothing would answer in Turkey. Laws that would suit German people would drive the French to suicide; in like manner Saxon laws are ill suited to fiery Celts. The Irish cannot bear the weighty hand of rude repression, which for years they have experienced. For generations Ireland has been a hotbed of discontent, until that unhappy state has become its

normal condition—until the people have learned to agitate with fire, dynamite and dagger. In my opinion their great mistake is huddling together in that wretched country. No colonists get on better than the Irish in other lands—why therefore cling to where their lot is poverty and famine. One's country should be that in which he can live in the greatest ease and comfort. The best way to avenge themselves on their oppressors is to move into other parts where they will in a few years be in a sense independent.

My return to London was not distinguished by anything startling, and on July 23rd I set out for Portsmouth. The town has 140,000 people, is 75 miles south-west of London, and opposite the east end of Wight. Less than 20 years ago its immense land fortifications were removed; and seaward it is considered proof against invasion. The dockyards cover 115 acres on which stand giant foundries, workshops and storehouses. Several large docks and basins cover about 100 acres, costing some five million dollars. The untold millions of brick used in these vast constructions were made by convict labor—machinery assisting. It is a modest statement to say that no naval establishment in the world approaches it in extent and completeness.

The roadway between Portsmouth and the Isle of Wight is over a dozen miles long by four in width; and here on July 23rd a naval review took place as part of the jubilee proceedings. The day was fine and except a single accident, nothing occurred to mar the enjoyment. The fleet comprised every kind of vessel or war implement afloat, classified as follows: 26 armored and 9 unarmored ships, 5 torpedo gunboats and cruisers, 38 torpedo boats and 12 troop-ships; officers and men 20,200, and about 500 guns. On former occasions more vessels may have taken part, but the immense power of ships and their terrible ordnance put the present review beyond any former display. The fleet was under command of Sir George Willes, divided into cruising squadrons and moored in lines about 300 yards apart. The iron-sheathed five-masted 'Agincourt,' 'Minotaur' and 'Black Prince,' tho of magnificent appearance are of small value, as two shots from the 'Inflexible's' 80-ton guns would be more destructive than one of their broadsides; while their few inches of iron plating would offer no greater protection against a thousand pound shot than a pine clapboard. But with yards manned and standing to quarters they look superb; and at present the rule is that as power and speed increase, fine appear-

ance diminish. The 'Collingwood,' with 44-ton guns, has a pole called a military mast, with double tops for machine guns. The 'Sultan' and 'Monarch' took part in bombarding Alexandria in 1882; and the 'Inflexible,' throwing 1700-pound shot, silenced fort Pharos before dinner. The troop-ships, tho only half the tonnage of first-class warships, are yet of good dimensions—being each 6000 tons. These great white castles steaming majestically past the deeply-sunk, steel-faced fighting monsters, formed the most imposing feature of the program. On board of them were lords, commons, peers, peeresses, ambassadors, Indian and colonial visitors, representatives of the press—besides a miscellaneous host which no one could number. The 'Victory' and 'Duke of Wellington' (both dismantled) are moored near the Isle of Wight. On the former is a brass plate on the spot where Nelson fell at memorable Trafalgar, on October 21st, 1805. They are representatives of 'England's wooden walls,' now dropped astern into history.

Though less than 150 craft were concerned in the review, the number of 'spectators' was perhaps 20 times as many. These consisted of steam and sailing vessels of every rig and tonnage—all gay with flags. The review ships, tho at anchor, all had steam up, and I could not help thinking of the hundreds, sweating among heat and dirt below, not a few with head and heart as good as those in higher places. While saluting, the breech piece of a gun (not properly shut) allowed the charge to take wrong direction, blowing to atoms a gunner and perhaps fatally wounding three others. Soon after 3 p. m., the royal yacht was seen approaching, the admiralty flag at foremast and royal standard at her main, showing the Queen was on board. Immediately guards of marines were turned up, flags dipped, anchors weighed and a gun from the 'Inflexible' was signal for others to open. To me this was the most enjoyable feature, tho the Queen is much averse to gunpowder racket. When the smoke had cleared, the yards of masted ships, the turrets and decks of others were seen to be crowded thick with sailors. Red-coats on deck, blue-jackets on yards and in rigging made a fine picture against the clear sky. Even those savage furies, the torpedo boats, each ranged on deck its dozen men to make as brave a show as any. As the royal yacht steamed past, marines saluted, bands played and commanders on bridges led off in cheers. The Queen surrounded by two generations and maids of honor, sat under a rich awning and smiled blandly as each craft joined in the fray. Prince of Wales had on his new

admiral suit, a parlor hero more brave than Nelson. Indian princes on the 'Malabar' troop-ship were conspicuous—their rich uniforms ablaze with gold and jewels.

On its return the flotilla anchored opposite the 'Inflexible,' when admiral Willes, with flag-officers and captains under his command, went on board the royal yacht, where a kind of levee was held. At close of proceedings her majesty issued the following order: 'Convey to officers and men under your command that the Queen has great satisfaction in the display made by her navy this afternoon.' On returning, each captain read the order to his crew assembled on the quarter-deck. The royal flotilla again got in motion, yards were manned, bands were furious, guns sent forth a parting volley, answered by forts on shore, and the naval review was a thing of the past.

At night the illuminations on board were fine beyond description. By means of red and blue lights, ships looked as if draped in flame; and electric lights thrown upwards formed an arch over the fleet said to be seen at 50 miles distance. Each ship had a line of lanterns from stem to stern, while a rainbow of lamps passed over the rigging. Bouquets of rockets and brilliant salvos of Roman candles were sent up with grand effect. After the fireworks, came a display of electric search-lights, forming a series of avenues beyond any possibility to describe. By 11 p. m., all was over and night getting things its own way, let down the curtains.

It may not be amiss here to give the strength and tonnage of the largest vessels that took part. First the flagship 'Inflexible,' launched in 1876, 320 feet long, 26 feet draft, 11,880 tons, 8000 horse-power, armor-plating 16, 20 and 24 inches on 24 inches of wood. Her citadel is 110x75 feet, rising 20 feet above water, has four 80-ton guns in turret and eight lighter guns for quick firing; speed 14 knots, with coal for 5000 miles; cost about \$4,000,000.—The 'Agincourt,' an old-fashioned broadside, length 400 feet, beam 69 feet, 28 feet draft, 10,690 tons, 6870 h. p.; armor-plating $4\frac{1}{2}$ to $5\frac{1}{2}$ on 10 inches of oak; has eight 12-ton guns, with 14 light guns and 15 machine guns; two torpedo tubes; speed 14 knots and coal for 1300 miles.—'Minotaur,' a ship of same pattern and dimensions; is little faster and has two rifled six-inch guns and four torpedo tubes in addition. When built, over 20 years ago, these ships were considered monsters; now they are considered of small value. In like manner, the furies of to-day will no doubt be despised 20 years hence.—The Hercules, a center-battery ship, built 1878, 325 feet long, 59

feet beam, 27 feet draft, 8680 tons, 6750 h. p.; armor-plating 6 and 9 inches; eight breech-loading 10-ton guns and four of 7 inches, besides 10 smaller ones and 14 machine guns, four torpedo tubes; speed 14 knots; coal for 1760 miles.—The 'Monarch' launched in 1879, length 330 feet, 28 feet draft, 8320 tons, 7840 h. p.; armor on sides 5 to 7 inches, on turret 8 to 10 inches; four 25-ton guns, four torpedo tubes; speed 15 knots, coal for 1500 miles.—The 'Ajax' is a turret ship built in 1883; length 280 feet, draft 24 feet, 8510 tons, 6440 h. p.; turrets armed with four 38-ton guns, ten lighter ones and 14 machine guns, two torpedo tubes; speed $13\frac{1}{2}$ knots, coal for 4000 miles.—The 'Collingwood' launched 1886; 325 feet long, 68 feet beam, 26 feet draft, 9150 tons, 9570 h. p., twin screw, guns 22 feet above water on towers 140 feet apart; has four rifled 43-ton guns, 14 machine guns, four torpedo tubes; speed $16\frac{1}{2}$ knots, coal for 8500 miles, cost \$3,000,000.—The 'Colossus' is a sister ship.—The 'Imperieuse' is a belted cruiser built in 1886, armour 8 to 10 inches protecting magazine and machinery, hull sheathed with copper; has four 18-ton guns, 14 smaller and 14 machine guns, six torpedo tubes, speed 17 knots with coal for 7300 miles. The 'Camperdown,' 'Benbow' and 'Anson' are new cruisers, twin screw, with coal for 8500 miles. At time of her majesty's coronation in 1837, the British navy consisted of wooden sailing ships, the two largest each carrying 120 guns; four second-rate ships of 72, 84 and 96 guns; eleven third-rate, with frigates and war-sloops. It is no exaggeration to say that one first-class ship at present would in a few hours sink the whole British navy of 50 years ago and sustain no damage. The cost of the navy in 1837 was estimated at £4,500,000; at present it is probably four times that amount.

I have little idea how many watched the review, but at night the railway station was packed; and as train after train paused an instant to receive its fare, it was easy to miss the right one. At length my turn came, and the train (perhaps a quarter mile long) was filled in about ten seconds after the doors were opened—people could not rush with greater vim if escaping from a fiery structure. I watched the muscular display as if viewing a circus, and in so doing to all appearance got left. But no; for next instant the door right in front flew aside and half dozen men sprang out as if sped from a cannon. They had boarded the wrong train—hence their hurry. It is no sign of a gentleman to rush, and just as the guard sounded his starting signal I stepped on board with as much deliberation as if that train

had stood for my sole advantage. English people, accustomed to move in great masses, have acquired the habit of making a sudden rush when boarding a train or steamer, even when there is no occasion for haste; and to this habit must be due the destruction of life whenever any alarm is raised in church or temple. On the other hand they bear patiently with annoyance that would stir people here to riot. The train just mentioned didn't reach London till after midnight and owing to some bungle, had no lights; in this way about 30 car-loads of people sat in darkness for three hours. Yet I heard nothing said, except now and then an expression of mild disapproval.

SCOTLAND.

On July 26th I left London for Edinburgh, distance 400 miles, travelled by fast trains in $8\frac{1}{2}$ hours. A greater speed was tried some years ago, but after a month the former rate was resumed. Nothing short of perfection in track and rolling stock could stand such speed—over 70 miles an hour in places. Only three brief stops are made—at York, Newcastle and Berwick. Here the rush to buffets and elsewhere is so great that many prefer to suffer rather than share in the fight. In American cars one can always get a drink of water and have access to a closet; but to be fastened for hours (with eight or nine others) where one has barely room to sneeze or move a winker, is neither pleasant nor healthy.

The route along the east coast is flat and tame; and where streams are wanting, windmills are only less frequent than in Holland. The tourist should stop at Peterboro, Lincoln, York and Durham to view the cathedrals, considered among the finest in existence. York is rich in evidence of Roman times, while its railway station has few to match it. Newcastle on Tyne, 280 miles from London, has about 160,000 people and great activity in coal and metal. Its yearly export of coal, cinders and patent fuel approaches five million tons—a quantity almost beyond conception. Sir Wm. Armstrong's great manufactory of steam engines, iron bridges and ordnance is near by at Elswick. In building iron ships, Newcastle is only surpassed by the Clyde. The town has many fine buildings; but coal having the sway, has painted everything its own color. Rain appears never absent, and fogs from the north sea frequently add to the gloom. The track along here skirts the water, and some dozen miles before reaching Berwick the Farnes islands are seen to east—a small, rocky group, extremely dangerous to vessels.

Over a century past a Dutch 40-gun ship was here lost with all her people; and in 1782 a ship from the new world met a like disaster. During a gale about 70 years ago, three brigs and a sloop were here dashed to pieces; and in 1838 a steamer of 300 tons struck one of the islands and broke in two—the bow remaining fast with nine persons on it. At day-break they were seen from Longstone lighthouse, about a mile away; and the keeper's daughter (22 years old) persuaded her father to attempt their rescue. The sea raged so wildly that the probability of both being lost was greater than of effecting their purpose. The attempt was made, and by favoring Providence all got back safely. The demure country maiden became at once noted; her picture was eagerly sought and London theaters offered large rewards if she would appear on the stage in boating costume. But she was not a girl that stamp, and did not long enjoy her honors; for consumption led her gently away in 1842, a month short of 27. She is said to have been comely, modest, retiring, with the heart of a hero, the soul of a martyr. In Bamborough cemetery her monument may be seen, inscribed—GRACE DARLING.

Berwick on the Scottish side of the Tweed has about 15,000 people, a bridge of 15 arches connecting it with Tweedmouth on the English side. We are now in the land of heather and for some distance the track keeps near the shore; then it passes through a hilly section, the train springing lightly over viaducts and arches. This is followed by a level country (Haddington), resembling the best parts of our island province. Farming is conducted on extensive scale and I noticed that steam power is mostly used for threshing. I arrived in Edinburgh before dusk, and next day with a worn-out soldier as guide, began to encompass the city and view the sights. Fancy a valley running west and east, a rocky turret rising steeply from its bottom, say 350 feet, about 300 yards across at base and 200 at summit. This is castle rock, forming a kind of hub for the city, its lower slopes clothed with sward and dotted with trees. On this turret stands the castle, and no building on earth has better foundations. The summit consists of a higher and lower terrace, the whole being several acres in extent. The entrance is over a drawbridge and under an archway, showing grooves in which formerly slid massive portcullis and gates. Above this entrance is the old state prison; farther on the armory, then officers' quarters. On the highest terrace stand the old parliament hall and royal palace; here in a small room of irregular shape (nine feet the longest way), James I. of England was born in 1566. The

crown room contains the ancient regalia of Scotland, such as crown, scepter, sword of state and official rod of silver. They were long supposed to be lost till discovered in an iron-bound chest where they had lain 110 years since the date of union in 1707. Part of the crown was worn by king Robert Bruce, Queen Mary and others; the sword was a gift from Pope Julius to James IV., along with a 'purple hat, flowered with gold.' Scots are justly proud of these symbols of ancient independence and relics of a monarchy, commencing with the hero of Bannockburn. The castle buildings are quite tall and imposing—now used as barracks and for military stores. By articles of union it is one of four Scottish fortresses in which a regiment of the line is always kept. On the east face is a battery from which a time-gun is fired every day at one p. m. Greenwich. Queen Margaret's chapel is near by, 10x16 feet in dimensions; but if small in size it is vast in centuries; for the pious queen of Malcolm Canmore worshipped here till her death 800 years ago. In front is Mons Meg, an old gun of uncertain parentage, but supposed to have been made in Belgium four centuries ago. It is built of iron staves, entirely covered with hoops of the same metal; is about a dozer feet long and 20 inches diameter at muzzle. In 1682, while firing a salute, one of the hoops gave way and it has since been silent. In 1684 it was taken to London and placed in the Tower, but was returned in 1820. A pile of stone shot such as formerly used, is alongside. On a fine day the view of town, country and harbor from this terrace is delightful.

The esplanade is a smooth piece of ground (three or four acres in extent) east of the castle and used for drill. Here stands a tall monument to officers and men of the 78th Highlanders who fell in the Indian mutiny of 1857; also a fine monument to Colonel Mackenzie of the 42nd, and one to Duke of York. From the esplanade eastward to Holyrood (a short mile) the street has a continuous descent, and is known by Castle Hill, Lawn Market, High Street and Canongate. The first house to right was the Duke of Gordon's town residence, his arms yet over the entrance. The house afterwards was made into separate dwellings and in one of them David Baird spent his early years. At 15 he joined the army and eight years later was taken prisoner in India and confined in the great fortress of Seringapatam. His mother being informed that the prisoners were chained together by twos, hastily exclaimed—'Hech! pity the cheil oor Davie is tied til.' Davie had been a daring, active

youth and his mother thought his companion would have uneasy time of it. At the end of four years he got out, and on May 4, 1799, he commanded the storming party which captured the fort. For this distinguished service he was presented with the sword of Tipoo Sahib, and on returning to Britain was knighted as Sir David Baird, hero of Seringapatam.

Several noted buildings are in this section—the general assembly hall, free church hall, free church college, bank of Scotland and royal exchange. We are now in Lawn Market, and houses associated with fame and talent are on every side. David Hume, Dr. Johnson, Lady Stair and Robert Burns lived for some time in this section. A house now used for mechanics' library belonged to Bailie MacMoran, a man of substance in his day—for we find him entertaining queens and princes. The Bailie was shot by a college lad in 1598 while attempting to restore order among refractory scholars; but the boy's father had influence enough with the bench to shield him from harm—showing how personal friendship interfered with justice in those early times. The following will also show the crude ideas of justice even among those who swung the balance: On a certain occasion the impartiality of Cromwell's rule in Scotland being praised before an occupant of the bench, he tartly replied—'Deil thank him for't: he had neither kith nor kin in the contra.'

We are now at St. Giles, which next to the citadel is the most noted erection. The present building dates from the 14th century, is 200 feet long, with a crown-shaped spire 160 feet in height. Long ago the interior had been changed from its original form, and some years before his death William Chambers, publisher, undertook (mostly at his own expense) to restore it. The work cost £30,000, but the generous donor passed from earth three days before its opening on May 23, 1883. In the vestibule are marble monuments to officers and men of the 72nd, 78th and 93rd regiments who fell at the Indian mutiny; and high up in the nave are old flags taken by Scottish troops in foreign lands. The walls of St. Giles echoed to the voice of Knox; and it was here in 1637 that Jenny Geddes flung her stool at the Dean's head, on attempting to read the litany. A bust in bronze of Dean Stanley (the work of a Miss Grant) has lately been placed near the royal pew. The cemetery belonging to St. Giles was long ago covered by parliament square, the body of John Knox being the last interment. A slab in the pavement, with the initials J. K. is supposed to be over the spot—but there is no certainty. The site of old tolbooth or 'Heart of Midlothian' is

preserved by the outline of a heart in the pavement near the church. The city cross stands a few yards to eastward, where in old times proclamations were made and executions took place. Marquis of Montrose, Marquis of Argyle, Sir Wm. Kirkaldy, with other nobles and chiefs were here summoned to the land of spirits. The cross had been removed in 1756, but was of late restored.

Near St. Giles are the parliament buildings, silent since the union in 1707. The hall is 120x50 feet, and has a magnificent ceiling of carved pendants, a good deal like the great hall at Hampton Court. It contains statues and pictures of Scottish divines, warriors and statesmen; and a rose window in the south end is among the finest I ever witnessed. The advocates' library, in part of the building, contains 15,000 volumes, besides manuscripts of rare value. Among the latter are copies of the 'League and Covenant,' some of the signatures written with blood. On parliament square is a statue in lead of Charles II., erected in 1685. It is said the original purpose was to put up a statue of Cromwell, the model of which had been prepared; but when the restoration took place, the magistrates with convenient pliancy, substituted 'the merry monarch' instead. A fulsome inscription on the pedestal shows how much reliance can be placed on rock eulogy. Tron church is a little farther east, so called from a wooden trone or weighing beam that formerly stood near. To this in old times (it is said) the ears of false witnesses were nailed as warning to others.

Along High Street the house in which Allan Ramsay had his bookstore stands yet in good condition. At the entrance of a certain close the head of a youth is carved on the keystone, with this inscription—'Heave awa chaps: I'm no deid yet.' Tho we are dealing with ancient things this matter is of late occurrence. On a Sabbath morning in 1861 an old tenement that stood here collapsed without excuse or warning, killing 35 persons. A few were got out alive, and while digging operations went on, a voice from the tumulus shouted cheerfully the words given above. The workmen increased their efforts and soon had the youth at liberty without scaith or scour. On erecting a new building the affair was commemorated as stated above. The house of 'Bluidy MacKenzie' (advocate in reign of Charles II.) stands in this section, and not far off stood that of the no-less-infamous cardinal Beaton. They were bloody men who well performed the work of their master. Farther along is the house in which John Knox lived from 1560 till his death in 1572, in his 67th

year. It is a four-story house in good condition, and has these words engraven above the door—'Lufe God abuf all and ye nychtbour as yiself.' In front is a paltry effigy, supposed to represent the reformer.

We are now in Canongate and on our right stands the house of Regent Moray, erected in 1630, shortly after which it became the headquarters of Cromwell. On May 25, 1650, the marriage of Lord Lorn and daughter of Earl Moray took place here, and on the same day Marquis of Montrose was lead past for execution. It is said that all stood on the balcony to witness their old enemy's misfortune, little thinking the bridegroom (as Marquis of Argyle) would perish on the same spot eleven years after. The house is in excellent repair and is now used as training school for teachers. From two to three centuries ago this street was the west end, the fashionable section and contained the cream and sugar of the times. Here dwelt honor, wealth and talent—a castle at one end, a royal palace at the other. But the garment in which a peer rubbed against kings often ends its days on a beggar; and houses along this street in which nobles dwelt have been for generations homes of poverty and filth. The house where dwelt Smollet and his sister (Mrs. Telfer) is yet upright, and in the next Burns joined a masonic lodge. Not far off lived Lord Monboddo and his lovely daughter whose early death the Scottish bard bewailed in song. Along here is Canongate graveyard where repose the dust of Adam Smith ('wealth of nations'), Dugald Stewart, David Allan. The poet Ferguson also lies here—an Edinburg youth of fine education and splendid talent, who ruined himself by fast living and died in a madhouse at 23 years of age. He was seven years the senior of Burns, who on visiting his grave in 1786 sat with uncovered head and wept. With the first money received from his poems, Burns erected a stone over his 'brother in the muses,' the inscription being among the finest stanzas from that erratic prince of song:—

'No sculptured marble here! No pompous lay!
No storied urn or animated bust!
This simple stone directs pale Scotia's way
To pour her sorrows on her poet's dust.'

Holyrood stands near the lower end of Canongate. The abbey was erected by David in 1128 in gratitude (according to a legend) for his rescue from a stag by the appearance of a rude or cross. It was a magnificent structure of cathedral size, with royal apartments, two western and a grand central tower.

During the revolution it was partly destroyed and for years remained in that condition. In 1758 it was roofed with stone, which being too heavy, soon brought the whole to grief. It has since been a ruin, containing tombs of Scottish monarchs. The palace (joining the abbey) was started early in the 16th century; enlarged about 1530, and completed 50 years later. But except one tower and the historic apartments, the present pile dates from the days of Charles II. It is about 200 feet each side, with court in the center, and built in the turret style of that period. The picture gallery is 150 feet long by 27 wide, and has 106 pictures of mythical Scottish kings from Fergus 330 B. C., to James II. in whose time they were all painted. From Darnley's rooms a private stair leads to Mary's apartments, by which the murderers of Rizzio ascended; and at the entrance of the audience chamber a stain in the floor is said to have been caused by Rizzio's blood. A grate in this room is thought to have been the first used in Scotland. Mary's bed-chamber is entered from here and contains her bed (so said), work-box, table, chair, pictures of herself and Elizabeth. A small room communicates with this where Darnley held the Queen while Ruthven and Douglas were finishing Rizzio. But this story is old and often related. In the audience chamber Knox had many hot encounters with his beautiful Queen; and once when she walked off in a rage, Knox addressed the maids of honor—'Oh fair ladies, how pleasant this life if it would last and in the end ye could slip into heaven with all this rich gear. But fye on that knave death who will come whether we invite him or no.' Before the palace entrance is an elaborate stone fountain, some 20 feet high, modelled after one at Linlithgow palace. A statue of Victoria formerly stood here, but being very ugly she had it interred 6 feet, to vex archaeologists of future days. Till recent times the abbey precinct afforded a sanctuary for insolvent debtors; and only 35 years ago were removed a group of houses for their accommodation.

The Cowgate runs to south of the Canongate; and at its western terminus (south of Castle hill) is a paved square 200x40 yards, called 'the grass market.' It was the Scottish Smithfield of olden times, the spot where the gibbet stood, being marked by a cross in the pavement. Here many Scottish worthies suffered death, the last being young James Renwick. Burke and Hare carried on their traffic in 1827-8 near this place; their business being to murder persons and sell their bodies to medical students for dissection. Heriot's hospital stands some 200 yards south

of grassmarket. It is a handsome pile, 160 feet square, with central court, and completed in 1660, in time for Cromwell to use it for his troops. George Heriot was jeweler to James VI., amassed a fortune and left £23,600 to erect this splendid structure. Not far off is the new infirmary, an immense pile that cost about two million dollars. Grayfriars' church is near at hand, built in 1612. In it the national covenant was signed in 1638, after Alexander Henderson had preached. The churchyard formerly belonged to a convent, burnt by the English in 1547. It was never restored and in 1566 the ground was used as cemetery for Grayfriars, George Buchanan, who died in 1582, being the first interment of note. Here are also planted the remains of Robertson, Blair, Ramsay, Henry McKenzie, Dr. M'Crie, Patrick Tytler and 'Bluidy McKenzie.' The martyrs' monument is however its chief object, its inscription running thus—'From May 27, 1661, when the noble Marquis of Argyll was beheaded, to February 17, 1688, that Mr. James Renwick suffered, were one way or another murdered and destroyed for the same cause about 18,000, of whom were executed at Edinburgh about 100 noblemen, ministers and others, noble martyrs for Christ. Most of them lie here.' About 1200 covenanters taken at Bothwell bridge were lodged in this cemetery nearly five months without shelter and no food except four ounces of bread, and a mouthful of water daily. If any stirred at night he was shot by the guards. The few who survived were shipped to Barbadoes as slaves; but the vessel was wrecked on the Orkneys, and a brutish captain not allowing them to swim ashore, all but 42 perished. This was the way one section of the Christian church showed its love towards another.

About 200 yards east of Grayfriars stands the university, with its faculties of art, theology, law and medicine; its 45 chairs and 3000 students. The museum of science and art is alongside, covering an area of 400x200 feet and 90 feet in height. The objects are ranged on principles of science, and the collection tho not large is highly instructive. In the department of natural history is suspended from the roof the skeleton of a whale over 80 feet long, supposed to be the largest ever mounted for inspection. It was found in the frith by Dunbar fishermen in 1809, and sold to Dr. Knox of the university. Among the larger curiosities is a stalagmite eleven feet long and 24 inches diameter, sawn from the floor of a cave in Bermuda in 1819 by Admiral Sir David Milne. His son (a mere lad) accompanied him and watched proceedings. In 1863 this boy (as admiral

Milne) visited the cave and found that on the stump several knobs had formed in solid contents about five inches. In 1873, the commander of H. M. S. 'Challenger' had the stump sawn off and carried home; but owing to careless handling the knobs were almost entirely rubbed away. The stalagmite entire contains nearly 50 cubic feet, and some have calculated that if it took 44 years to produce five inches, about 760,000 years would be required for the whole business. But this reasoning is superficial, as in early ages the rate of growth was no doubt many times more rapid than the present. Another object of rare interest is a caste of an iron pillar, erected at Delhi 320 B. C. The total length is 50 feet (28 feet in the ground and 22 above); diameter 18 inches, slightly tapering and about half dozen feet of the top ornamented. The weight is estimated at 20 tons—a wonderful work at that early period.

Potter Row leads south from the university and in a house near by, Thomas Campbell composed 'The pleasures of hope.' Here at the house of Miss Nimmo, Robert Burns met Mrs. Macle hose, between whom and himself so much free correspondence passed in after time. Locally the street is called Patara, and it is related that a beadle once for a dram, offered to prove that Paul had been in the city. The matter settled, the beadle turned to Acts 21st and read—'We came into Cos and thence to Patara.' The proof was abundant and he got the whiskey. This recalls an incident that happened about a quarter century ago, not 20 miles from where I am writing. The principal actor was from the land o'cakes, and tho past three score and ten, retained his old love for whiskey. Stiff joints, rheumatic pains were all forgotten; a taste of barley-bree made him feel lively as a callan. Late one afternoon he was toddling home, lordly drunk, supremely happy. In crossing a fence he fell in such a way as to be completely helpless; but ere long a gentle snore declared his safe condition. Discovered before night, he was taken home, put to bed and next day was fresh as an oyster. But people will talk—the story got afloat and soon reached the parson. Before many days he and his chief elder (two excellent men) paid the toper a visit. There was wide room for accusation and the poor man got a terrible dressing. Apparently crushed in spirit, he sat with bowed head, a picture of sincere repentance. Nearing the close of his review, the preacher spoke somewhat as follows—'Remember my friend that none of us lives to himself—society demands from us a good example. The apostle Paul declared himself ready even to abstain from meat,

if by so doing'—At mention of Paul, Davie looked suddenly up and in his most vigorous Doric interrupted the speaker with—'Dod, Paul himself was verra gled when he came in sight of three taverns near Rome; and gin he offered to abstain frae meat, he took gude care to say naething aboot abstainin frae whuskey.' This unexpected retort started minister and elder as if a stone had dropped from the chimney—they stared at each other speechless. The situation was ludicrous, but they were in no mood for laughter; and expressing abhorrence at wresting scripture, the two departed. Davie was after all a leal honest Scot and no bad member of the community. The spree in question was probably his last and not many years after, he crossed the troubled sea and was laid to sleep with his people.

The new town lies to north of the old, separated by a deep valley. It is of recent date—little of it being over a century. The streets are wide, and frequently interrupted by a 'place,' 'square,' 'crescent' or 'circus.' In the south-east rises Calton hill some 250 feet above the valley, with Nelson's monument (over 100 feet high) on one of its summits. A gilt ball on its flagstaff drops at one p. m. and fires (by connecting wire) a gun on castle terrace. There are also monuments to Dugald Stewart and John Playfair, both noted professors. The observatory is a fine Grecian pile, with moveable dome in which the man in charge makes observations. The national monument occupies a central position, erected 70 years ago to commemorate the heroic deeds of Scottish arms at Waterloo. It was intended to be a copy of the Parthenon at Athens; but the funds gave out in erecting a dozen columns with architrave, at cost of \$80,000. To south east of the hill stands Burns' monument, inside of which are interesting relics of the bard. Calton is one of three points commanding an excellent view of the city. From it Princess-street runs directly west for nearly a mile and few thoroughfares rival it in attractions. The new postoffice stands on the left, a magnificent building in Italian style, costing over half a million dollars. Opposite is the registry, a square of 200 feet enclosing a court, surmounted by a massive dome and containing a fireproof room for safe keeping. A fine equestrian statue of Wellington stands in front. Looking west, the right is flanked by a line of many-storied hotels not surpassed in London or Paris; while on the left stands a row of monuments to such men as the city delights to honor. Scott's is one of the finest testimonials in the world to individual merit; next follow statues of Wilson, Ramsay, Simpson, Black and Livingstone, a man who

stood above them all for intrinsic greatness. Scott's is a Gothic spire 200 feet in height, covering a square of 40 feet and costing \$80,000. In the central arch at bottom is a marble statue of the great literateur. The monument was built in 1844 from designs by a young self-taught architect of great promise named Kemp. He was drowned in a canal before the work was finished. Right across the valley is Castle hill, an imposing object apart from its grand historic connexions. The distance between it and Prince street is about 300 yards, and in the valley between are Princess street gardens—an array of floral beauty, lawns, paths and arbors unsurpassed by the famous Champs Elysees in Paris. Nearly opposite Castle hill is 'the mound,' which is simply an earth barrier across the valley, forming a bridge to west of two others. From 1781 to 1830 the spot was a dumping place for the new town and is computed to contain two million cartloads. It is 800 feet long, 300 feet wide at the bottom, and about 100 feet in the deepest part. The railroad track tunnels through it, and to all intents it appears as much a natural formation as Calton hill or Castle rock. It divides the gardens into east and west, and on it are built the antiquarian museum and art gallery. Among interesting objects in the former are: the maiden (a Scottish guillotine), a pulpit used by John Knox, cutty stool of Jenny Geddes, joughs (a kind of iron collar for punishing scolds), stool of repentance, original copies of the 'league and covenant,' tattered banner used by covenanters at Bothwell bridge, blue ribbon worn by 'the pretender,' and ring given him by Flora MacDonald.

Dean bridge is a handsome structure, crossing the water of Leith 110 feet above it, and over half a mile north-west of the castle. Donaldson hospital (a mile west of the castle) is a handsome pile of vast dimensions, that cost over half million dollars. The endowment was left in 1830 by James Donaldson, an Edinburgh printer, for educating 300 poor boys and girls of the city. It is mildly whispered the Queen wanted it for a palace instead of Holyrood; but there was no flaw in the parchment and the heritors, however reluctant, had to decline the transfer. Seeing that her majesty is not badly housed I was not shocked by having this great pile occupied by troops of urchins instead of by servants and court minions.

Few towns of its population and square feet are so well provided with churches as this Attic metropolis of the north. The Free church has 41 places of worship, the Established 35, the U. P. 25, the Episcopal body 14, besides a large number belong-

ing to other denominations. St. Mary's cathedral (Episcopal) is a large handsome structure, with central tower 275, and two end towers 209 feet. It cost over half a million dollars, a bequest from two Misses Walker of Coates. Edinburgh is rich in monuments as well as churches; as besides the statues mentioned the following are represented in stone or metal: Catherine Sinclair, Forbes of Culloden, James Watt, Sir Wm. Wallace, Wm. Pitt, Lord Cockburn, Lord Melville, Dr. Chalmers, Earl of Hopetown, Jeffrey, Queen Victoria, Charles II. George IV. [Along with the latter two gents the fitness of things would suggest monuments to Nelle Gwynne, Madame Pompadour and ladies of that feather.] Melville's statue of 14 feet has a granite pedestal 136 feet in height. In Calton burying-ground stands a tall obelisk to five persons banished in 1794 for political views which in later time would be considered too staid for 'Dizzy.' This shows that reform sentiments are advancing even in that land of tardy progress. Albert memorial (erected in 1876) is a bronze equestrian statue on a granite pedestal 17 feet high, with subsidiary groups of the same metal. The whole thing cost \$82,000 and is a credit to that ambitious city. A house stands on Castle street in which Sir Walter Scott lived many years, and where occurred an accident which he worked into one of his novels. He had a numerous party one day, listening eagerly for a call to dinner. At length the butler entered with countenance that plainer than words bespoke some bad disaster. He called his master aside to say that dinner was teetotally spoilt—a monster flake of soot had ruined the broth and neighboring dishes. It was enough to make a hero turn pale—a most awkward dilemma.

Arthur's seat is the most striking feature about the city, three half miles east of the castle, a mile south-east of Calton hill and one-half mile south of Holyrood. It is irregularly shaped, and terminates in a rocky point 820 feet above sea-level. About a dozen of Scotia's best counties can be seen from the summit, besides much diversified landscape of mountain, vale, country seat and ruined castles. Needless to say that it commands the best general view of the city, its harbor and suburbs. Grange cemetery is one mile south of the castle, and contains the ashes of Hugh Miller, Dr. Chalmers, Dr. Guthrie, Sir Andrew Agnew, Dr. Lee, Lord Dunfermline and other names of distinction. One half mile west of this stands Merchiston castle where John Napier (inventor of logarithms) was born in 1550 and died 1617. The importance to science of his great work can hardly be com-

puted. The Napiers were a remarkable stock, distinguished mostly as warriors.

Edinburg stands near the south side of the Frith, less than 20 miles from its entrance, has about 200,000 people, and like Tarsus, is no mean city. On hearing the inhabitants declare it to be unequalled in attractions I fancied they were speaking in jest or childishly partial; but before many days I too was ready to pronounce it the glory of lands, the queen of cities. Its natural features would ennoble a place otherwise unattractive, and these have been improved by taste and culture. Other cities clear away the older parts and rebuild. Not so in 'Modern Athens'; as from Princess street a few minutes bring into a town many centuries old—a tangible historic record. Then for a small place, what city has given the world such an array of illustrious persons? No sphere of praiseworthy effort but has been adorned by men from this nest of education and talent. Nowhere is the standard of intelligence and taste more advanced, and what land more renowned than the adjoining country? Scarcely a league square within 50 miles but has been fertilized with human blood during various battles—but has a palace, castle, hall or is distinguished in some manner.

Leith was formerly two miles from the city, but now they are practically connected. Its population is about 50,000, extensive docks and two piers extending almost a mile in the water. Like most shipping places, it is by no means tidy. West of Leith is New Haven, a fishing village inhabited by Scandinavians, who adhere to the dress and ways of their country. The women are noted for wearing gay and picturesque costumes; they carry the fish to market in creels, effect a sale and guard the exchequer. Portobello is a pleasant bathing-place about three miles east of the city. It was here Hugh Miller ended his days on December 23, 1856. A few miles eastward along the shore is Prestonpans, where general Cope was defeated by the Pretender about six months previous to Culloden. Craig Miller castle is a fine ruin two miles south of Edinburg, once a favorite residence of the Scottish queen. Farther south is Roslin castle in a wild romantic wooded glen through which riotously speeds the Esk. A mile below, lived the poet Drummond from 1585 to 1649. His descendants yet own the place and make a good living by exacting a fee for viewing what would be considered of small account were it not hedged in by tariff. Roslin chapel (near by) is a marvel of decorative art, is in good repair and still used for worship.

When I went in a guide was explaining with many words and great unction the allegorical significance of the various carvings. Were it Solomon's temple the parts could not have greater import than was represented. He merely (he said) gave an outline, as every flower, scroll and crocket was in itself a sermon. I demurely inquired if these were the sermons in stone mentioned by the 'divine William.' Those present laughed, but the guide gave no sign of approval, except press his teeth firmly together. The prentice pillar is considered the crowning marvel, and respecting it the guide gave the following version: In past ages it was customary for the master workman to show his best skill on some part of each structure. On this occasion he decided to sculpt a pillar. The monolith was secured, but before commencing, the chief decided to visit Rome for some new pattern. At his return he found the pillar finished. The work showed a grasp of design and operative skill which he could not possibly equal. One would suppose he leaped for joy and rubbed his hands in gladness. Not so; but he inquired in a rage—'Who did this—who spoilt my pillar?' Someone replied—'the prentice did it;' whereupon he seized a maul and before anyone could interfere, killed the young mechanic. The stone has since been named 'the prentice pillar.' It is merely a fluted column with three raised bands of elaborate carving running spirally round it.

The Frith of Forth runs in from the east about 30 miles; is over 15 miles wide at its mouth, where stands North Berwick, a pleasant watering place with fine environs. Close by is Berwick Law, a conical hill rising 600 feet, skirted by wood and forming a remarkable feature in the landscape. Tantallon castle is near, on a high sea-washed rock, its origin unknown. About two miles to north stands firmly the Bass rock, its summit rising 350 feet above water and its base one mile in circuit. A tunnel 30 feet high runs from east to west and boats can enter on certain conditions. The remains of a state prison exists on the rock, where over 200 years ago noted covenanters were confined. On north shore of the Frith (about a dozen miles in) is the village of Largo, noted for being the birthplace (in 1676) and early home of Alexander Selkirk, the original of 'Robinson Crusoe.' The name (Selcraig) is yet common in the village. Farther west, on a high sea-cliff is Weymis castle, where queen Mary first met Darnley, her future husband. MacDuff and Ravenscraig castles are not far off. Castles were numerous along this reach, one of them being the reputed home of Michael Scott, the noted wizard

who is supposed to have flourished six centuries ago. Near Kinghorn is the precipice over which (on night of March 16, 1286) Alexander III. fell and perished, the accident being attended by a train of political misfortunes that nearly wrecked the country. Some dozen miles to north is loch Leven, about eight miles round and 360 feet above sea-level—in 1836 reduced by draining at cost of \$200,000. In it are two islands, the largest five acres in extent, with royal castle. Here queen Mary was imprisoned eleven months previous to May 2, 1568, when she escaped. Aberdour is a pleasant village to westward; has attractive surroundings, two old castles and is crowded with strangers in summer. Several islands are in the Frith along here; one, Inchcolm, has ruins of an abbey and fortifications.

Nine or ten miles west of Edinburgh the Frith contracts suddenly to a mile by a sharp projection from north. This is Queensferry, and in midst of the narrows stands the rocky islet of Inch Garvie with ruins of a castle. Across the river at this point the greatest engineering work of modern times has been completed—the Forth bridge. It was begun in 1883 and took about seven years to finish; consists principally of steel and cost over ten million dollars. The total length is three-half miles, almost one mile being covered by four spans, including the columns. The three main columns are 360 feet high, one of them standing on the islet just mentioned. Each rests on stone piers built in the most secure manner. Great difficulty was experienced in planting these foundations, the water being in places 90 feet deep. They were built inside immense caissons 70 feet square, of wrought iron, in which men worked under water. It is estimated that 50,000 tons of steel were used, and everything except rolling the plates was done on the spot. The rails are 157 feet above high water, with a clear space of 150 feet for vessels. An army of over 3000 men were generally at work, with competent engineers in proportion. The new Tay bridge was opened for traffic early in '87, and unites the shires of Fife and Forfar. It is over two miles long, rises at the center 77 feet above highwater and cost \$3,500,000. According to estimate, 25,000 tons iron and steel, 37,000 tons brickwork and 55,000 tons concrete were used. The former bridge was completed in 1878, and after being in use less than 20 months, the central portion (about one-third mile) was on December 28, 1879, blown down and 75 persons on a passing train perished. The river here is quite deep, but strange to say the locomotive and cars of the lost train were recovered.

Let us now follow the north shore of the Forth to Stirling, a distance of some 30 miles. Not far from the bridge two battles were fought in old times between Cromwell and the deluded partisans of the Stuarts. A mile or two farther west is Rosyth castle at which Cromwell slept and where queen Mary put up after her flight from Leven castle. Broxburn farther on, is the seat of Lord Elgin and contains the sword and helmet of Bruce.

Dunfermline is three miles north of the river, is capital of Fifeshire, has about 20,000 people and extensive manufactures. Tho of small account at present, it stood high centuries ago—with its royal palace and abbey. The palace ruin stands on the side of a wooded glen—the birth-place of kings and queens and the home of others. The abbey close by is a beautiful ruin, the end window all perfect except glass. A church some 50 yards away (part of it 600 years old) has interred under its pulpit the remains of Bruce and his queen. In another part are laid the ashes of Canmore and his consort, king Edgar, Alexander I., David I., Malcolm IV., Alexander II. and queen, with others of royal blood. This old fane seems to have succeeded Iona as burying place for Scottish monarchs; the tower (100 feet high) is surmounted by a stone balustrade, forming the words—'king Robert Bruce.' The cemetery alongside is crowded with memorial sculpture, apparently old as the flood. Here is interred Ralph Erskine who with his brother Ebenezer (buried at Stirling) was founder of the Secession church. A statue of him stands in front of the church where he ministered. The town has fine municipal buildings and handsome park. Andrew Carnegie of New York was born here and in gratitude for the favor, presented to the people a library with 10,000 books on its shelves.

Culross (alongside the river) was once of some importance, but is now much reduced. By royal grant from James VI. and Charles II., the smiths of Culross possessed the exclusive right of making girdles, a utensil of frequent use in a land of bannocks. In 1827 the monopoly was withdrawn and now girdle-making is almost a lost art. Few places so stubbornly retain the customs and appearance of old time as Culross. Near by is an ancient castle, where (tradition says) MacBeth ordered MacDuffs' wife and children to be slain. Farther up river is Kinkardine, a sleepy village, tho early this century it carried on large ship-building trade. Near by is Tulialan castle, the pleasant home of Lord Elphinston, with grounds beautiful as trees, terraces, fountains and artificial lakes can make them. Near Clackmannan stands the tower of a castle that belonged to

Robert Bruce, and where formerly were kept the two-handed sword and helmet used by him at Bannockburn. Alloa is on the river bank, 21 miles from Stirling by water and seven by land. Alloa tower (remains of the Mar family residence) was built by Alexander II. in 1223; the walls are 11 feet thick and the structure rises to about 90 feet at summit. A signet ring of queen Mary and a baby chair used by her son are said to be yet in existence. The gardens are beautiful and the park of 40 acres is finely wooded.

Let us skip the rest and hurry on to abbey craig, a conical hill across the river from Stirling, on which was lately erected a monument to Wallace. In 1856 the 'North British Review' made a mean attack on the patriot's memory, but a Glasgow paper replied with much spirit; and on June 24, 1861 (the 547th anniversary of Bannockburn) the corner-stone of a monument was laid amid the roar of cannon and huzza of thousands. The lowest estimate gave 30,000 persons, and medals were struck to commemorate the occasion. Lieut.-General Sir James Maxwell Wallace headed the great procession, and among the relics borne aloft were old stained colors of Highland regiments, silk banner with arms of Wallace, silk banner with arms of Bruce, the great sword of Wallace from Dumbarton castle, sword of king Robert Bruce, sword of Sir John de Graham, sword of Sir Richard Lundin, sword of black Douglas. The stone was laid with masonic rights, M. W. G. M. Duke of Athole presiding. In the evening a banquet was given at which 350 were present—Sir A. Alison in the chair. The pile stands on a wooded hill, with a shaded drive-way winding in easy grade to the summit. It is 220 feet high, 36 feet square at base, its top finished in form of a crown, under which is a promenade of 100 paces. A winding stair leads to the top from which the view in clear weather is finely striking. Among historic scenes and rural landscapes in view are the sites of six great battles. Inside the monument are four rooms in as many stories—one being a museum in which a variety of ancient arms and armor is shown, all of giant proportions. Above the doorway are the Wallace family arms, with a stone thistle of huge dimensions; while a bronze statue 13 feet and 21 feet to point of uplifted sword was added in 1887. It rests on a corbel 50 feet from the ground, weighs three tons and cost over \$4,000. The ceremony of unveiling took place on 25th June amid the crash of bands and boom of cannon. Since opening the monument in 1870, the yearly average of visitors numbered 12,600. The cost of the pile was \$82,000.

The Ochils is a range of hills extending seven or eight miles northward of the Forth. Their east end is about a dozen miles from the river; westwardly they terminate in abbey craig just mentioned. Their sides are generally rounded and smooth, with wild wooded gorges and frequent cascades. In Glendevon, the stream while rushing furiously as if bent on self destruction, plunges into a chasm from which a grinding noise issues. This goes by the name of 'Devil's mill' because it works 365 days per annum. A hotel sits pleasantly on a slope at short distance, and some 200 yards below, a bridge spans the chasm 120 feet above the stream. Below, the scenery is wild as water rushing down hill and wrestling among rocks and trees can make it. The gorge is thickly wooded, and hanging boughs are often seen playing with the torrent. By degrees level ground is reached, where the stream widens into a quiet, peaceful river. But this is only a sun-glimpse in the storm; for soon another precipice is reached where it squeezes through a chasm, then plunges in cascades of 30 and 40 feet. Here are three caldrons or pots—one with diameter of 22 feet. Its anger being appeased, the stream gradually becomes the peaceful smooth-winding Devon, passing quietly under stone bridges, laving the feet of old hamlets, winding through blooming vales and fruitful valleys. Dollar is here leaning cozily against the Ochils, with 2000 people who give themselves two half holidays a week. Dollar's most noted feature is an academy with botanic gardens, natural history collection and library of 6000 volumes. Classics, modern language and arts are taught by a principal and 20 teachers. The school has acquired such reputation that of its 750 pupils not a few come from distant lands, and surprise was expressed on my admitting that the fame of Dollar institute was not on every tongue across the Atlantic. The holidays are seven weeks in summer, two at Christmas and one at Easter. Students are boarded by principal and teachers at \$200 to \$250 per session—including school expenses. The academy is of Grecian style, with portico and Doric pillars. The endowment was a gift of a quarter million dollars from Captain John MacNab, born here in 1732, left home at 14, so low in cash that he borrowed a few pence to pay his ferry. At Leith he started as cabin-boy, rose step by step, secured a fortune and died in London in 1802. His estate went into chancery, and when in 1818 a decision was given the Dollar endowment had increased to \$370,000. Behind the town a wooded glen leads to an ancient castle on a precipitous spur between deep gorges. It is associated with the names

of Knox, Montrose, queen Mary and the Campbells; while a gloomy legend says that in olden times a king's daughter was imprisoned here because she wished to have her own way in regard to marriage. The scenery here, tho only a short walk from Dollar, is wild enough to attract notice in the Tyrol or Baden. One gorge has perpendicular rocky sides only a few yards apart, to all appearance a rent caused by some grand convulsion. A short distance west of Dollar is Tillicoultry with 4500 people and manufactures of shawls, plaids and tartans. Passing through its principal street one morning at nine, the sidewalk became crowded with people. On inquiry I learned they were mill-hands (1700 of them) going to breakfast. Alva is another small place near the Ochils with manufactures of shawls and tweeds—a fine gorge and cascade behind it.

Two miles farther is Menstrie house, where in 1734 was born Sir Ralph Abercromby, one of the ablest generals that lifted sword in defence of British honor. After a distinguished career in Holland and the West Indies he was sent in command to Egypt, now in French possession. Could Napoleon subdue England, all Europe would be under his knuckles. Britain must be cut off from the Indies and to effect this, Egypt must be secured as fulcrum. In 1801 Sir Ralph effected a landing at Aboukir, and on March 21st the whole French lines were attacked. When victory began to lean wrong, the reserves were led forward and soon turned the battle. The 42nd Highlanders (then a picked corps) stood the weight of onset and were accordingly left on the sand, all but a fragment. Their chief fell mortally wounded and died in a week. His remains were embalmed, brought home and interred in Tullibody church, a mile or two from his birthplace. His widow was created Baroness Abercromby, with a pension of \$10,000; and the British government erected a splendid monument to him in St. Paul's cathedral, representing the general falling from his horse into the arms of a kilted soldier. The pedestal bears the following inscription:

Erected at public expense to the memory of Lieutenant-General Sir Ralph Abercromby, K. B., Commander-in-Chief of an expedition directed against the French in Egypt; who, having surmounted with consummate ability and valor, the obstacles opposed to his landing, by local difficulties, and a powerful and well prepared enemy, and having successfully established and maintained the successive positions necessary for conducting his farther operations, resisted with signal advantage, a desperate attack of chosen and veteran troops on 21st March, 1801, when he received in the engagement a mortal wound, but remained in the field, guiding by his direction, and animating by his presence, the brave troops under his command, until they had achieved the brilliant and important

victory obtained on that memorable day. The former actions of a life spent in the service of his country, and thus gloriously terminated, were distinguished by the same military skill, and by the same zeal for the public service, particularly during the campaigns of the Netherlands, in 1793 and '94; in the West Indies in 1796 and '97; and in Holland in 1799; in the last of which, the distinguished gallantry and ability with which he effected his landing on the Dutch Coast, established his positions in the face of a powerful enemy, and secured the command of the principal fort and arsenal of the Dutch Republic, were acknowledged and honored by the thanks of both Houses of Parliament. Sir Ralph Abercromby expired on board the 'Foudroyant,' the 28th of March, 1801, in his 66th year.

A short distance from Menstrie is Myreton farmhouse, where in 1804 the celebrated traveller Mungo Park, bade adieu to his connexions when setting out on his last expedition to Africa.

Coming back to Queensferry, let us follow the river by its south side, and note the places of interest. Passing Hopetown and Abercorn we come to Blackness castle on a rocky peninsula far out in the river. It was a stronghold of the Douglas and first shows up in 1443; afterwards a state prison and now a powder magazine. Lord Ochiltree was confined in it 20 years, and John Welsh (son-in-law of Knox) was imprisoned in a dungeon below water level for the crime of convening a church assembly. He was in 1606 banished from Britain, and being in poor health, it is related that his wife appeared before James VI., to ask that her husband be given his native air, being the only chance for recovery. The king forgetting his usual dignity, replied—'Give him the devil.' 'Give that to your courtiers' was the quick response. About three miles from the river stands Linlithgow, in the 12th century a royal borough, but now a village of some 4000 people. Here in 1570 the good regent Murray was shot dead by an assassin named Hamilton, to appease some private grudge. Linlithgow palace stands on margin of a lake, was built in the 14th century, covers an acre of ground and was the finest in Scotland. James V. and his unfortunate daughter were born here, and the place was a favorite residence of Scottish kings. In 1756 the palace was burnt, and even in ruins it has an appearance of massive grandeur. Falkirk (four miles from the river and half dozen farther west) is a town of some 12,000 people and the scene of two battles—one in 1298 between Edward I. and the Scots; the latter between the royal troops and deluded followers of the pretender. Near Falkirk is the widely-known Carron iron-works; and not far off the village of Larbert where the railway lines from Edinburgh and Glasgow come together. In this neighborhood a battle took place in 1488 between James III. and his refractory lords, his own son

(afterwards James IV.) taking part with them. The royal troops were put to flight and the king used spurs like the others. A woman taking water from a road-side brook, jumped up on hearing the clatter. The horse shied, threw the king and some of his foes coming up, finished him. Near by is Torwood, famed in the history of Wallace. Here Donald Cargill excommunicated Charles II. and a centenary of the event was held in Torwood castle in 1880.

Two or three miles south of Stirling is Bannockburn, a village of 3000 people, but widely known from its great battle on June 24, 1314. All that now marks the spot is a bored stone in which the staff of Bruce's victorious banner stood on the day in question. Even this was being carried off by tourists till an iron grating was put over it. In 1870, the Oddfellows of Dumbarton erected a handsome flagstaff near the spot. Burns on viewing this Marathon of the north was moved to write the well-known 'Scots wha hae'—a grand legacy of patriotic song to his native country.

Stirling is on a steeply rising ground to right of the crooked Forth, 36 miles west of Edinburgh and 30 miles north of Glasgow. The hill terminates in castle rock, 340 feet above sea-level, nearly perpendicular except where it faces the town. The castle is an imposing pile, was residence of kings five or six centuries ago, when the city shared the honor of being capital. Queen Mary when an infant was crowned here, and from half-pence with a figure of the baby queen came the Doric word 'bawbee.' Parliament hall (120 feet long) is now used as barracks, the chapel royal as storeroom and armory, and Mary's boudoir as officers' messroom. In the Douglas room (where in 1452 James II. stabbed Earl Douglas) a number of old curios are shown; but everything of antiquarian value was taken away in the time of Cromwell. The Scottish records (formerly kept here) were taken off at the same time and lost or destroyed. The castle is entered by a drawbridge, over which hangs the portcullis. The fosse is dry and as in Edinburgh, used for recreation by soldiers. Several batteries of smooth-bores are along the ramparts, which it is safe to predict will never be used for offensive purpose. At the southern base of castle rock is a hamlet of Irish workmen, where as fine a brogue is spoken as on banks of the Shannon.

Records show that Grayfriars church was rebuilt in 1407 after destruction by fire. James VI. was crowned in it when 13 months old, after a sermon by Knox. The building is 200x52

feet, and a partition divides it into two parts in which congregations simultaneously worship. In the adjoining yard are monuments three centuries old, the inscriptions and carvings being mostly of a ludicrous cast. A monument records the death of Margaret MacLachlan and Agnes Wilson (aged 18), who on May 11, 1685 were bound to a stake in Wigton bay and allowed to perish by the incoming tide. The marble was cut at Rome and is under glass cover. A statue of Ebenezer Erskine is near by. The 'Salem rock' is a pyramid about 20 feet high on which are recorded leading Bible truths, symbolic designs and other figures. There are monuments to Melville, Henderson and Knox, whose names are embalmed in the history of their country. Over the entrance of the city hall is a giant statue of the patriot Wallace; and a heroic statue of Robert Bruce was placed on castle esplanade in 1877. Scotsmen are said to be void of fun, but they are not without humor. It appears that in the long ago some person with more pride than money erected a mansion on Baker street and engraved his arms unduly prominent; but not long after the place was owned by the highest bidder. A humorist erecting a house on the opposite side, had the following cut in stone where most convenient to notice:—

'Heir I forbear my name or armes to fix
Least I or myne should selle these stanes and stickes.'

On a link of the Forth close to Stirling stood Cambuskenneth abbey, founded by David I. in 1147 and occupied by Augustine canons. It was pillaged by Edward I. and destroyed 250 years later—the tower (70 feet high) being the only part standing. The abbey was famous in its day and was used for parliament meetings. James III. and his queen were interred near the altar, and less than 30 years ago the remains were found, reinterred and a fine tomb erected. Old Stirling bridge dates back 500 years and is still in working condition. In 208, Agricola owned a bridge about a mile up river; this was replaced by Kildean bridge, every vestige of which has long since departed. Here in 1297, a sanguinary fight took place between the troops of Edward I. and Wallace—the former having to run. In history the engagement is known as 'battle of Stirling bridge.' Vessels of 100 tons can reach Stirling, if short enough to get past the turnings; but the present stream is only the channel of what formerly was an inland arm miles in width. There seems to be abundant proof of this, as not far from Stirling was found (in 1819) the bones of a whale 70 feet long, 22 feet above

highest tide. Other whale skeletons were found since, the last in 1879, and marine shells are quite common.

Bridge of Allan is a lovely watering place of 3000 people, about two miles from Stirling. Two miles farther is Dunblane, a village of like size and made familiar by Tannahill's 'Jesse the flower of Dunblane.' It has a magnificent old cathedral founded by David I. in 1140. There are beautiful walks in the vicinity, and in 1868, the largest sycamore in Scotland blew down near by. It was 440 years old, girth of trunk 40 feet and spread of branches 114 feet. At Sheriffmuir near Dunblane, a battle was fought between followers of the Pretender and royal forces under Earl of Argyle. The village of Doune has a fine castle ruin, with tower 80 feet high, the courtyard wall 30 feet high and seven thick. Callendar is an attractive village 16 miles from Stirling; is in sight of fine mountain scenery and the usual starting place for the Trossachs, about a dozen miles to west. Scarcely a ridge, rock or summit here but has been referred to by Scott; and the tourist is but comfortably seated when Coil-antogleford is passed on the left. As a mode of river crossing it has been superseded by a bridge. For the next five miles loch Venachar is skirted at some distance to left. The scenery is no way startling, but improves as we advance. Three or four miles to south is lake Monteith, where is a convent in the island of Inchmahome, queen Mary was placed at five years for safe keeping. Loch Venachar passed, Duncraggan is on the right; and descending a hill, 'Brig of Turk' is crossed. The structure is unimportant and succeeds the one mentioned by Scott. The stream is not much, but it winds through the wild, romantic gorge of Glenfinlas. Here we have a fine view of loch Achry, and for the next two miles that gem of lakes is to left. Lakes Achry and Katrine are just one mile apart and that mile constitutes the world-famed Trossachs. It is a wooded ridge, with mountains each side, their bare fronts appearing at snatches. The wood is principally rowan, birch and pine, while the ground is covered thick with fragrant bushes. Few square miles in creation have been more deluged with printed description, and perish the pen that would allow me to traduce the spot by labored bathos. A nice smooth road winds pleasantly up the wooded pass, then descends, and Katrine lake bursts on the vision. Let me here whisper mildly that the enjoyment of Trossach scenery largely depends on meteoric conditions, and clouds over mountain districts never seem pinched for water. One day the traveller shouts—'The glory of Lebanon and

beauty of Carmel are tame to this; but a turn of the weather tap changes his song into a doleful whine about 'beastly dripping trees, mist and torrents.' Loch Katrine is eight miles long and 360 feet above sea level. Its shores are extremely uneven, being varied with deep bays and sharp projections. It is flanked by hills on both sides, mottled with birch and heather. Lovely walks extend along the margin, and higher up in places. Near its east end is Helen's isle, a wooded craggy spot and the central scene in Scott's 'Lady of the lake.' The district to north is named Strathgartney, after which no doubt the late R. B. Stewart, Esq., called his estate in this province. A small swift steamer is at a rustic landing, above which steeply rises shaggy hills, clothed with birch of small stature. I do not attempt to describe the enjoyment of a sail on this loch when the pleasure is not marred by some flaw in the weather. From the west end a road leads to loch Lomond, five or six miles off, and on the way, loch Katrine is viewed to best advantage. Along here may be seen the ruins of a fort, built in 1713 to overawe the MacGregors, General Wolfe being for sometime in command. From the hill above Inversnaid the view is among the finest in Scotland. The lake is right below, and beyond lies Glensley, the MacFarlane country, with mountains and vales like a tremendous stackyard. A hotel stands at the shore, and a few yards off a stream rushing madly down grade, makes a 30-foot leap into the water. It was at Inversnaid Wordsworth saw the Highland girl that so badly disturbed his rest and whose beauty he records in song.

Lomond is considered the chief of British lakes, is 21 miles long, and for 13 of these less than a mile in width. The south end is six wide and closely planted with islands from three miles in circuit to mere dots with a pigmy tree or bunch of heather. Some are deer parks, some are cemeteries that contain the ashes of men who fought and flourished centuries in the past. Along the lake margin are hotels, shooting-lodges and villas, cradled among trees and overtopped by mountains. It is overhung by a dozen heights from 2000 to 3000 feet—Benlomond rising 3190 above sea-level. Its shores present opposite extremes of outlook—in the north wild and savage, while the tiny archipelago to south recalls the isles of the blest in the vision of Mirza.

We now return to Callender and take train for Oban, distance about 80 miles. Two miles bring us to the famous pass of Leny, a narrow defile between wooded hills and the steep rocky sides of Benledi. For the next five miles the train skirts the

winding shores of loch Lubnaig, a mountain mirror framed with rocky ramparts of 3000 feet. On a clear day the scenery is multiplied like jewelry in a show-case; at other times it looks as if its proper use was to fill inkstands. In a farmhouse on the east side, James Bruce wrote the account of his Abyssinian travels. He was born at Kinnaird house near Falkirk and in 1768 set out in search of the Nile sources. After an absence of four years he returned with the blue Nile in his satchel; and in 1790 appeared his account in five large volumes. After passing through perils and hardships unscathed, he was killed at home by a fall down stairs in 1794. Lubnaig passed, on the left is loch Voil, north of which lie the braes of Balquidder, with mountains rising 4000 feet. This was formerly the MacGregor country, and in a village churchyard near loch Voil a rude cairn marks the grave of Rob Roy. Here he died in 1735, at the age of 70, leaving five sons, one of whom died an outlaw in Paris, while the same year another was hanged for abduction. Tradition states that when near his last, Roy was told a neighboring chief (with whom he was on ill terms) had called to see him. 'Raise me up (said the dying brave)—raise me up and put on my best outfit, with sword, plume and dagger—MacAlphine shall never have the satisfaction of seeing Rob Roy on his death-bed.' This being done, the neighbor was admitted and the chiefs conversed for some time. On the stranger leaving, Roy asked to be laid down, ordered his piper to play, and in a short while passed into the land of spirits—at least so runs the story. We are now passing through the Grampian range, the greatest mountain system in Britain. Soon we get an end view of loch Earn, overtopped by Ben Voirlich, 3200 feet in height. In former times the MacNabs were quite strong in this section till driven out by the Campbells. They and the Neishes had a standing grudge and about 400 years ago, in a desperate encounter, the latter were all slain except a few who betook themselves to an island in loch Earn, where they lived on such forage as came within reach. Some time after, the MacNab chief sent a servant to Creiff for Christmas supplies and on his return the Neishes waylaid and robbed him. On going back empty-handed, MacNab's ire was kindled and he vowed revenge. Coming into the house one stormy evening he obscurely hinted that if his sons had the vim of their sires, the night was prime for plunder. The sons at once sprang to arms, carried a boat on their shoulders, launched it on loch Earn, slid cautiously to the island where the Neishes kept no guard. The door was

broke by one sally, the MacNabs rushed in like wolves, butchered the Neishes and carried off whatever they considered of value. Returning before daylight, they placed before their father the booty together with the gory head of the rival chieftain. Strange the lovely scenery round that lake did not subdue the barbarous instincts of these people.

Glen Ogle (about four miles long) is a savage defile between mountains. Rocks of every size appear suspended in mid-air, ready to crush the iron-horse and train to pieces; while the traveller is not assured by seeing below huge crags that were from time to time dislodged. The railway runs along the mountain side about 300⁶⁰⁰ feet from bottom—at one time through a roaring chasm, the next minute over a lofty structure. At Killin the track turns sharply to west and enters Glendochart, 12 miles long, having a floating island some 40 yards round and formed of vegetable matter. Near the farther end is a wooded isle with the ruins of a castle, an ancient residence of the MacNabs, but taken from them by the Campbells. Killin is to west end of loch Tay, and is surrounded by scenery of unsurpassed beauty. The lake is some 20 miles long, and the district is subject to frequent shocks of earthquake. Farther on is Dalree where Bruce had a skirmish with three MacDougalls, one of whom with dying grasp seized his brooch and mantle. This is how the brooch of Lorn came into possession of the MacDougalls. The track is now close to 1000 feet above sea-level, and begins a descent to the Atlantic. After some miles of bleak, barren country, Dalmally is reached, famed for its enchanting outlook. Three glens meet in the Ochry valley and the spot once seen is not soon forgotten. We are now into Argyleshire and skirting Ben Cruachan, the track cut deeply into its base; to south is loch Awe, an irregular sheet over 20 miles long. On a hill overlooking the lake stands a monument to Duncan MacIntyre, among the most noted of Gaelic poets. A legend states that this lake was formed in one night by overflowing of a well in the side of Ben Cruachan, which a fairy in charge neglected to cover at sunset. The lake contains 24 islands, several of good size. In 1276 Heather island was conferred by Alexander III. on Gilbert MacNaughten on condition that he should entertain the king whenever he came that way. Here he erected a castle and so late as 1745 the MacNaughten chief prepared to receive Prince Charlie when in the country. Another island (Innishail) was for generations a burial place of the clans who died of fight or fever in the district. The grave-

stones show rude carvings of priests with croziers, knights and warriors with claymores. The clan MacArthur held the adjacent country but were driven out by the Campbells. To west of loch Awe a granite monument was erected by the present Duke of Argyle to his renowned ancestor, *Cailean Mor*, the founder of the Campbells. A huge cairn not far off shows the spot where he was slain by an enemy in ambush, when returning from a foray in 1294. In 1580 a mansion was built by Sir Colin Campbell (sixth knight of that house) at east end of loch Tay; and when asked why he chose the utmost limit of his domain, he replied briefly—'Well briz yont' (we'll push forward); and they did, for now their territory extends from Aberfeldy westward not less than 100 miles. Kilchurn castle stands on a promontory jutting into loch Awe and was garrisoned by royal troops till 1745. We are now in the pass of Brander, one of the most noted defiles in Scotland. Here a fierce battle took place between Wallace and an adherent of Edward I. at head of 15,000 troops; and later (in 1306) Robert Bruce and the McDougalls of Lorn had a fight in which the clans were defeated. As the train advances a tall slab appears on a height with this inscription—'To the memory of Lord Nelson, this stone was erected by the Lorn furnace workers.' The monument, if somewhat plain, has the merit of being the first erected to that bravest of British seaman. The Grampians are now left behind, but the country is by no means level. The reader must not think that no mountains except those mentioned were passed since leaving Callender, as dozens unnamed were within hailing distance. After skirting the shores of loch Tive, then a few miles of hill and valley with the occasional home of a crofter, the train brings up at Oban—facetiously called 'Charingcross of the Highlands.'

Oban is a handsome place of about 2000 people. Tho only a village in size, its broad, clean streets, fine churches, palace hotels and general appointments make it resemble a square from the center of Paris or Dublin. The place has two papers, five banks, seven churches, while its hotels are said to number forty. Few spots surpass Oban in varied attractions, and recognizing this fact, natives mark their service and cheer at high figures. What metal works are to Glasgow, tourist travel is to Oban—the business is a kind of picnic and fair mixed together. The esplanade in front is alive with well-dressed people, while rural walks have promenading groups and parties. Watermen are soliciting fares, and in no place did I find hotel drummers more aggressive, loud and fierce than in this pocket city. The

harbor is perfectly secure, and generally crowded with keels of every rig, size and color. Excursion steamers leave at 6, 8, 9 and 10, returning later in the day like cows from pasture. Delightful villas, embowered in wood, recline on sunny braes along the shore, with everlasting ramparts of granite behind them. Professor Blackie has here a sylvan retreat which (I was told) he declines to inhabit since an iron hoof has defiled the town. At Oban I became acquainted with Dr. MacKelvie, a genial, large-hearted Scot who occupies a front place in his profession. He is full cousin to the late esteemed and lamented Dr. Robert MacKelvie, so well known in this county.

At entrance to Oban harbor stands Dunolly castle, an ivy-clad turret on a precipitous rock, a former stronghold of the MacDougalls. Near by, a huge rock pillar rises 30 or 40 feet, called 'the dog-stone,' from a tradition that to it Fingal was accustomed to fasten his famous dog Bran. Another version (equally truthful) says that when Lord of the isles came to visit Dunolly, his dogs were made fast to this pillar. On a wooded promontory three miles off stands the ruin of Dunstaffnage castle. Its origin is unknown, but tradition makes it a residence of Dalriadic kings prior to Scone, a few miles from Perth. It shows up in history about 600 years ago, passed to the Campbells in 1436, and at the rebellions of 1715 and '45 was occupied by government troops. It is now a roofless pile; walls 60 feet high, 11 thick with corner towers on which are brass cannon from the Spanish armada. The interior is 80 feet square, and a recess in the wall formerly contained the *lia fail* or 'stone of destiny,' previous to its removal to Scone in 850. In 1296, when Edward I. became master of Perth, he sat on this rock cushion when assuming the crown. Next year he had it removed to Westminster abbey, where it has since formed a kind of underpinning to the coronation chair. In 1657 it was carried across the street to Westminster hall, so that Cromwell might receive its occult virtues when established protector of the realm.

The island of Mull lies about half dozen miles west of Oban, and tho only 25x30 miles, its coast-line measures 300. Its shores are wild and rugged, with caves, cliffs and arches; while the interior presents grand scenery of mountain, dark ravine, clear lake and rural valley. Of over a dozen heights *Ben More* is king, with an elevation of 3170 feet. The island is best calculated for grazing, and in about 50 years the inhabitants diminished from 12,000 to probably half that figure. Tober-

mory with about 2000, is the principal village, lying at north-east of the island. It has three churches, three banks, daily mail and several hotels. The surrounding scenery is quite fine, a splendid cascade being among the attractions. The harbor is protected on every side and often disturbed by keels of all tonnage. In 1588 the 'Florida' (flagship of the armada) was blown up here by MacLean of Duart.

The sound of Mull (26 miles long and two in width) separates that island from Morven to north, with castle ruins frequent on its high, steep ramparts. Duart castle on a rocky spur opposite Oban, with walls a dozen feet thick, is quite entire tho roofless. It belonged to the MacLeans, a valient, warlike clan who of old ruled the island. Artorinish castle on the Morven side was headquarters of Lord of the isles when driving things in full feather. Here in 1461 he convened a parliament of vassals, and as independent prince sent his cousins Ronald and Duncan to treat with Edward IV. for the conquest of Scotland. That however was the last legislative assembly, and in a few years the power if not the title became extinct. Aros castle, on the Mull side, was another stronghold of the same gentry. Ulva in a wide bay to west, was formerly occupied by the McQuarries after being driven out of Mull by the MacLeans. It rises a thousand feet in places, and has basaltic cliffs scarcely inferior to Giant's causeway. In Ulva Dr. Johnson spent a night in 1773, and next day was ferried to Inch Kenneth where he was royally entertained by Sir Allan MacLean and his daughters. Samuel greatly wondered at the learning and accomplishments of these ladies, and at the ancestral dignity shown in this far-away quarter. His feelings could only be expressed in choicest Latin verse.

One mile from the extreme west of Mull lies the famed Iona, three miles long, with about 2000 acres of surface. Its fame is due to Columba, who in 563, came over from Ireland with twelve apostles. Originally from Donegal, tradition says that, like Moses, he refused a crown for the higher office of preacher. At death his remains were taken to Kells and laid between those of Saints Bridget and Patrick. For 300 years Iona continued superior to all Scottish monasteries; but in the ninth century Norse pirates killed the monks, robbed and burnt their dwellings. Worse than all, the library (a literary treasure) was burnt or carried off by the robbers. From its supposed sanctity Iona became a burying-place for kings and lords from many countries. Forty Scottish kings, one French, two Irish and two Norwegian

kings found rest there. The present ruins are thought to date from the 12th century and were built several hundred years after the time of Columba and his people. Their primitive structures were undoubtedly of wood, not a trace of which remained long before the present ones were erected. The cathedral is 160x64 feet, with a square tower 60 feet in height. Except being roofless it is in good repair and looks firm enough to stand for centuries. The sculptures are rude and grotesque; one represents an angel weighing a man's good and bad deeds, the devil pressing down the scale of ill actions. The chapel and nunnery (60x22 feet) are not in as good condition. Of 360 crosses that stood on the island 350 years ago, only two are now in position—MacLean's 11 feet high and Martin's 14 feet high, 18 inches wide, 6 thick and covered with runic inscriptions. Of MacKinnon's cross, only part remains, with Latin inscription of date 1490; St. John's cross is prostrate and broken. Fifty or 60 sculptured slabs are yet to be seen marking the graves of kings, chiefs and abbots. Of 40 Scottish kings, 16 were MacAlpin, the most famous being Kenneth, first king of Scotland. MacBeth is said to have been the last interred at Iona. The tomb of one Lord of the isles can be made out—that of Angus Og who fought with Bruce at Bannockburn. The MacLeans are in great number, the inscribed slabs indicating the importance and wealth of that clan. MacLeod of MacLeod has a fine slab, and a MacQuarrie rests among the mighty dead.

Staffa is six miles north of Iona and is about a mile in circuit, rising 120 feet at highest point. Like Giant's causeway and several of the western isles, Staffa is formed of basalt, a black igneous rock standing in six-sided pillars, mostly one to two feet in thickness. Some half dozen caves are round the isle, but that known as Fingal's is by far the most noted. It opens towards the south, runs in 220 feet, is 60 feet high, 40 wide and has 25 feet depth of water. On one side the pillars are 18 feet long and 36 on the other. A steamer calls daily in summer, but landing can only be effected in choice weather. The island surface is somewhat uneven and its herbage pastures a few sheep. During storms the romping and rioting of ocean billows among the caves is simply frightful.

A trip from Oban to Inverness (over 90 miles) by the Caledonia canal must not be omitted. It runs through a valley from Fort William to Inverness, is over 60 miles long and straight as a furrow. In this valley are three lakes and the actual canal (23 miles long) joins these together. Loch Ness, the largest, is 24

miles long, 900 feet deep and never freezes. The other two are four and ten miles long, and all three are narrow. A first survey was made by James Watts, work began 30 years later, and in 1822 the canal was open for traffic. It is 120 feet wide at top, 50 at bottom, 17 feet in depth, has 28 locks and cost over \$6,000,000. Besides the danger of rounding Cape Wrath, 250 miles are saved by this inland passage. The scenery along the canal and lakes, tho not wild, is highly attractive. Mountain ramparts extend along each side, green with young trees and every one of them planted. The cost I was told, is \$10 an acre; and parties to whom I spoke appeared incredulous when told that in Canada, trees spring up wherever land remains fallow. Glens, gorges and lateral valleys are frequent, with cascades and torrents rushing into the lakes. In some parts the hillsides are cultured, and haymaking being in progress, men and women could be seen rushing out at the approach of a shower. This great valley is a grand picture gallery, with canvas each side more ancient than works of the oldest masters.

Fort William (30 miles from Oban) was built by general Monk in Cromwell's time and had accommodation for 200 troops. Except in name it is no longer a fort, but a village of 2600, with hotels, banks and churches. Ben Nevis (4406 feet high) is near, and tourists who wish to ascend step ashore at Fort William. The ascent is not easy and after the top is reached one has seldom the good fortune to see anything but clouds and mist. About a mile from Fort William is Inverlochy castle, a grand old ruin said to have been at one time a royal palace. Near by in 1646 a sanguinary conflict took place between Montrose and Argyle, the latter suffering defeat with a loss of 1500 men. Inverlochy house (home of the warlike Camerons) is in this section; and at entrance of loch Eil stands a monument to Col. Cameron who fell at Quatre Bras at the head of his 92nd Highlanders, two days before a greater battle. To east is Lochaber and the 'parallel roads' of Glenroy are worthy of a visit. These are seemingly the margin of former lakes and can be traced round the valley. The lowest is about 900 feet above sea-level, the other two at greater heights. Of the various theories advanced the most probable is their being a result of glacial action. To west of the canal is Lochy river, and near by (at foot of a mountain) is Erracht house, birth-place of lieut.-gen. Sir Allan Cameron who served with distinction in America, Egypt, Sweden; was through the Peninsular war and raised in three months the 79th Cameron Highlanders.

or 'Queen's own.' We are now passing loch Lochy, with scenery of surpassing beauty. Here are the ivy-clad ruins of an old castle burnt by Cumberland after Culloden. Lochiel's estate was confiscated for the part he took in that unfortunate rising and the gallant owner passed years in exile in France. The property was afterwards restored. West of Lochy is loch Archaig, 14 miles long but of small width—a beautiful sheet of water in midst of romantic scenery, once vocal with the voice of men, the mirth of children; where rocks and hills echoed to the great war-pipes as the clans were marshalled to battle—now the silence unbroken except by red deer or sheep. Farther on, the Frasers and MacDonalds had a fierce encounter in 1544, the former being nearly all butchered. The day was hot and combatants throwing aside their outer garments, the melee was called '*Blar na leine.*' The scenery along loch Oich is very attractive, and by some compared to parts of the Rhine. Farther along to left is Glengarry through which a stream rushes with mad fury into the lake. An ancient castle of the MacDonalds crowning a rocky headland, was in 1746 burnt by Cumberland's people. Near the lake a strange monument stands by a spring—a pyramid crowned by seven stone crania. A lengthy inscription explains that near four centuries ago, MacDonell of Keppoch sent his two sons to France for instruction, that he had died and left the management of his estate to seven kinsmen. The sons at return were killed and the trustees took their possessions. A neighboring chief had the miscreants slain and their gory heads, after being washed in the spring aforesaid, were presented at his castle; while the monument was erected to record the fact that vengeance was not allowed to loiter.

An old castle ruin at Invergarry was long the home of MacDonald chiefs. At north end of loch Oich, Prince Charlie mustered the clans before setting out for the lowlands in 1745. Fort Augustus (30 miles from Fort William) was built in 1729 to overawe the clans, and was intended to accommodate some 800 persons. In 1845 it was taken by the Jacobins, but recaptured next year after Culloden. Here a host of chiefs were detained after the battle; here the bleeding head of Robert MacKenzie was delivered to Cumberland as that of Prince Charlie; here was confined the scheming Lovat before his removal south for beheading; from here were sent (after Culloden) soldiers to lay waste with fire and sword the surrounding country. Till the Crimean war the fort was occupied by troops; in 1867 it was sold to Lord Lovat for £5000, and ten years later it was by him

made over to the Catholic church. It has since been transformed to a college and monastery, having among the adjuncts a printing press and studio for painting. An idea of its extent and completeness may be inferred from the whole cost being estimated at nearly a million. Little now remains of the fort except two bastions, the fosse and engine-house.

We are now at loch Ness, the hillsides clothed with fir, birch and oak, with underwood of hazel and holly. A stage farther brings to glen Moriston where an impetuous stream rushes into the lake. Far up this glen among beautiful scenery was born general Fraser who fell at Saratoga in Burgoyne's expedition. The falls of Foyers are farther on, of no great account except the stream be in good condition. At small distance to left, a noted geologist (Dr. James Bryce of Edinburg) was killed in July 1877 by a stone falling on him while examining the strata of that section. Urquhart castle on a rocky spur is a grim massive ruin which in its youth must have been important. About 600 years ago it was captured and garrisoned by Edward I. of England. Near by is glen Urquhart with lovely scenery that merits the praise travellers are accustomed to give it. Farther on, the birth-place of Tytler the historian is pointed out.

Inverness has about 20,000 people and is handsomely placed on both sides of the river. The stream is about 50 yards wide, quite shallow and rapid, and crossed by three bridges. Two wooded islands in the river are tastefully laid out in walks and flower-beds, forming nice recreation ground for the people. The townhall or castle stands on a conspicuous hill and appears to combine a citadel with civic purpose. The English cathedral is considered the finest in North Britain, and the bishop's palace is prepared to match it. On the whole, Inverness is a pleasant spot in which to spend a summer. Tomnahurigh cemetery (a mile distant) is a natural curiosity and the chief lion of Inverness. It is a thickly-wooded hill, the shape of a steep roof, about 150 feet high, perhaps 300 yards long and about 100 wide at bottom. It stands on a dead level and rises abruptly from the plain. The sides are ascended by zig-zag paths and headstones are thickly planted among the forest.

Culloden moor (formerly known as Drumossie) is some half-dozen miles from Inverness. Here on April 16, 1746, were extinguished the last hopes of the Stuarts to mount the British throne. The spot is an elevated plain, now partly under cultivation and partly covered with young forest. A memorial cairn some 15 feet high marks the spot, while trenches in which

different clans were interred are marked with unhewn stones. A granite boulder 6x7 feet and $3\frac{1}{2}$ in thickness (a relic of the glacial period) is about 600 yards from the scene; and a deeply-cut inscription tells that on it Duke of Cumberland stood while directing the battle. Tourists display heroic perseverance in attempting to remove this landmark by carrying it off in pieces. It is thought that 250 Jacobites perished, while untold numbers were butchered in the meanest of cold-blooded fashion. It seems an attempt was made to exterminate the deluded people and leave that section of the kingdom a black ruined waste. Leaving the execution of chiefs a moot question, it was sheer brutal murder to wreak vengeance on the rank and file who merely obeyed the behest of their leaders. The Lord advocate, Duncan Forbes of Culloden, of whom bishop Warburton justly said that he was one of the greatest men ever Scotland produced, as judge, patriot and Christian—did much to save a throne to the Hanoverian blockheads. He prevented from rising, the powerful clans MacLeod and MacDonald who could themselves bring 8000 claymores into the field and make defeat of the government troops almost certain. Whatever money he could raise was loyally spent in these exertions; yet government (with king George at its head) refused to make good these expenses. Next year that truly great man passed away, pressed by claims he could not answer. The Georges had money enough to spend on court festivities and lewd women, but not a crown to pay what was many times a debt of honor.

Tho' dearly bought, the rebellion was not without advantage. The system of chiefs and clans then in vogue was a check to reform, a bar to progress; and that system with its tribal distinctions, was completely abolished by the defeat at Culloden. Hitherto the Highlands were in a large measure impassable; but now military roads were built to the most distant recesses. Prince Charlie from being a gay chevalier at Holyrood and hero at Prestonpans, became a fugitive, skulking five months among the islands, a reward of £30,000 offered for his capture, which, to the honor of a primitive people, was never claimed. On September 20, 1746, he embarked on a French vessel at the spot he landed 14 months before. At Paris he received a kind reception, to be driven away two years later. But the Stuart fondness for wine and the company of bad women soon changed the chevalier into a different sort of person. In his 52nd year he married the Countess of Albany, then less than 20; but receiving such brutal treatment, she left him and settled at

Florence, where (if rumor be correct) she married Alfieri the Italian poet. Prince Charlie died at 67, was buried at Frascati near Rome and got a monument by Canova of which George III. paid the expenses. Let me finish in the words of a contemporary writer: 'There died at Rome on January 30, 1788, a bloated profligate, a habitual drunkard who had beaten and abused a princely young wife and who seemed incapable of bestowing affection only on his illegitimate daughter; that unworthy sot and debased libertine was the last Stuart who claimed a throne—Bonnie Prince Charlie.'

After going north to Cromarty and making a trip across the country to Aberdeen, I started for the west coast and islands. The route is entirely through Ross and the scenery is wild and striking—mountains, streams, cascades and small clear lochs. At Achnasheen (about 50 miles from Inverness) the train is exchanged for coach to Gairloch, about 30 miles. Loch Maree is passed on the right, 16 miles long, with over 20 islands, one of them having remains of a Culdee cell and ancient burial. Another was residence of the MacKenzies and has remains of a fortalice. Maree is a beautiful lake, with mountain ramparts to north, the highest (*Ben Stioch*) rising 3220 feet. At Gairloch head is a fine hotel, with church, manse and other buildings; and a mile or two beyond is a wretched hamlet called Strath. Persons crossing to Skye or Lewis remain a night here, and there being no competing house, the scale of charges is unkind to small purses. The cheapest bed for a night is \$1.20, in a room 6x9 of Doric plainness.

From Gairloch to Stornoway in Lewis is about 50 miles—direction north-west. The place has about 2600 people and is more of a town than I expected. The principal industry is fishing, tho it has others of less value. The widow of Sir James Matheson owns the island, purchased by her late husband many years ago for \$950,000. Its area (with Harris) is 770 square miles and the population about 26,000. The scenery is varied by mountain, lake and valley, all less imposing than Skye. A narrow inlet separates Stornoway from the castle, one of the finest baronial seats in Britain. The situation is of much beauty—on a verdant slope, fronting the town, facing eastward and backed by forest. The grounds are well kept with fine conservatory and other indications of wealth and culture. They contain ten miles of drives and half as many of paths, with rustic seats and lodges. The proprietress resides in London, the estate being in charge of an agent or factor.

Stornoway is beyond the 58th parallel, 12 degrees north of P. E. I. and only two degrees south of Greenland. Winter days are a mere apology, but in summer they have 20 hours' sun and night is only twilight. In 1887 the people were at point of famine owing to failure in potatoes (grain of course does not ripen), yet the inhabitants seem loth to part with those hills and glens occupied by their sires beyond record. It is singular that people are attached to places where privations are rarely mixed with honey, and the wolf ever howling at the door. Iceland is the most forbidding land inhabited by civilized people, and years ago when the place was threatened with general destruction, an attempt was made to remove the inhabitants to some better clime. This might be done, but it would be necessary first to kill them. This wierd attachment to soil is no doubt an advantage, as otherwise all would rush to the more desirable parts, causing incessant wars and bloodshed. As it is, the inhabitants of Norway and Finland consider their country the glory of lands, while Italy with its gorgeous sunsets and balmy breezes is yearly deserted.

From Stornoway to Portree (distance 60 miles) the Minch is passed, noted for its boisterous sea, which on the present occasion was true to its record. A hard rain-storm prevailed, and tho early in August, cold enough for winter. Portree (the chief place in Skye) stands at east of the island, with about 2500 people. It is well built of light stone, has some half-dozen hotels, four churches, three banks and public buildings. Over half-dozen miles to north, Storr mountain rises 2500 feet, commanding a grand view in fine weather. Its east side is precipitous and broken, and near its summit stands a rock spire 160 feet in dimensions. Farther north is the Quirang, a species of basaltic cathedral with great fluted columns, of which attempted description would be labor in vain. The whole section is wildly tumbled and tossed, as if nature in building, had indulged in a frolic. In a land of grand geologic upheavals, the Quirang is doubtless the object of greatest attraction. A few miles westward is the grave of Flora Macdonald, over which (in 1871) a granite monolith, 28 feet high, was erected. In 1877 it was blown down and broken in five pieces. Uig village at head of a bay, is a beautiful spot—at least so in summer. A few miles nearer Portree is Kingsboro house, at which Prince Charlie spent sometime and where (in 1773) Flora MacDonald entertained Dr. Johnson. Some 20 miles west of Portree is Dunvegan (residence of MacLeod) a fine

turreted castle near the head of a loch. The poetic name of Skye is 'Isle of mist,' which it signally merits, as much of its scenery is obscured in fog. Of its numerous summits the highest (*Blabhein*) rises 3200 feet; and the wild savage grandeur of Cuchullin hills, Coruisk and Sligachan cast even Glencoe in shade. The island is 47x22 miles in extent, but so greatly cut with arms and inlets that no place is over five miles from salt water. The population some years ago was 17,000, but is diminishing by emigration. The people are brave, ambitious, and in the race for preferment, they are often ahead. For its population it is said that Skye furnished more soldiers than any part of British dominions.

Raasay to east of Skye, is 14 miles long and about three in mean width. Little of the island is fit for tillage, the interior being mostly moorland, rocks and heather. The center rises to about 1500 feet, the summit crowned by a perpendicular rock named Dun Can. Below its base is a clear loch a mile or more in circuit. Brochel castle to north is the only ruin, said to have been a fortress of *Iain Garbh* (brave John) some 300 years ago. Emigration has reduced the people to less than 400, mostly engaged in fishing. The proprietor's residence (near the west end) is a fine modern structure, backed with trees. As in Skye, Dr. Johnson speaks of having been handsomely entertained by the Raasay chief, and in a published account referred to him as vassal of his lordship in Skye. This was smartly resented, and in a second edition the Dr. made ample amends. Between the south of Raasay and Skye is Scalpa, nearly round and rising like a great stack from the water.

The passage between Skye and the mainland is scarcely over a quarter mile in places, the land each side swelling to mountains, their slopes green or brown with heather or dotted with sheep. Few spots make more lasting impression and one would like the boat to take 2 day instead of an hour in passing. The narrows passed, the sound of Sleat extends some 20 miles and of varied width. The island of Rum is now seen to right, some 30 miles round, rising 2500 feet from the water. A little farther Eigg is passed to right, calling up a legend of olden times which runs in this fashion: About 250 years ago a Sky-man became enamored with a *Dulcina* in Eigg and of course paid frequent visits. Such negotiations seldom run smoothly and two neighbors resolved this should be no exception. Next time Donald appeared he was met at the shore, bound fast, flung into his boat and set adrift without oar, or rudder. The

Skye chief, out for a sail, fell in with his derelict clansman and vowed evil to Eigg. These unfortunates learned what was in store—they were too few to stand, so they must resort to cunning. A cave by the shore was selected for refuge—the entrance was small and not likely detected. One fine day the Skye fleet was seen approaching; the refugees hastily entered their cave, bringing whatever they deemed of most value. The spoilers came like wolves to a fold and soon every house lay in ashes. The prisoners longing for air, sent forward a scout to reconnoiter; he was spied, pursued and at last re-entered the fortress. The Skye-men surrounded the cave, a pile of rubbish was heaped in its mouth and fired. Smoke and flame driven inward, the wail of despair was ere long hushed to silence. This is how Eigg in one day lost its 250 people—a mournful tale, romance and tragedy united. The steamer is now turning Ardnamurchan point, a rocky, cruel-looking place with much-needed lighthouse. The sound of Mull with its violent currents, its stern ruined castles, its lofty cascades, is passed and we are at Oban.

On August 12th, I set out for Glencoe, the first 20 miles by boat on loch Etive, with rocky hills and lofty mountains mirrored in its waters. The scenery is very fine and some consider Etive the gem of Scottish lakes. As if joining the gay with the useful, quantities of fine building stone are quarried along its margin. At the lake-head steamer is exchanged for coach, and after some dozen miles between mountains, we turn sharply to west and into the noted defile. Glencoe is just a wild, ragged notch between bare rocky mountains rising over 3000 feet, with scarcely a blade of grass to relieve the savage grandeur. Towards the west end is a tiny lake near which are small foundations said to mark the homes of the murdered MacDonalds. The glen tho wild and terrible in aspect, would draw no great attention only for the shameful tragedy enacted there on the night of February 13, 1692. But the incident is too well known to bear repeating, further than to say that 38 persons were butchered, besides many who perished in attempting escape. At mouth of the glen extensive slate quarries have been worked since 1697 and the amount of operations are inferred from the great hills of rubbish. The scenery here is very beautiful. A steamer from Inverness calls in the evening, and we are back to Oban at night—distance 20 miles.

In respect to population, Glasgow ranks third, if not second,

among British cities; and for an old country, its increase has been unusually rapid. About 90 years ago the inhabitants were rated at 85,000; now it probably has ten times that number. Originally the Clyde was a narrow stream which boys could ford on removing their stockings; now the largest trading craft can sport in its waters. But the change was not effected without money; for between 1770 and 1870 no less than \$26,000,000 were spent in deepening and building embankments. Owing to the refuse from factories, dye and chemical works, the Clyde for some distance is a veritable sewer, furnishing a greater number of vigorous odors than Cologne at its best; while the smoke is often so thick that steamers require to move very slowly and utter a warning about every minute. Glasgow has two miles of quays, or berth-place for vessels, and the river is crossed by half-dozen bridges besides those for railway traffic. The city is scarcely more noted for building metal ships (one of the greatest industries in Britain) than for manufactories of all sorts. St. Rollox chemical works cover 16 acres, employ about 1,300 persons, use over 120,000 tons of coal in its hundred furnaces per annum. Its two chimneys (135 and 154 feet high) are said to be without equal, whereas the enterprise has no parallel in dimensions. The ironworks are on a scale of vast proportions—350 puddling furnaces, 50 rolling mills, with a yearly output of 50,000 tons steel rails and about a million tons of iron. Few are able to comprehend the quantity represented by those figures. The cotton industry is only second to Manchester—about 100 factories, 30,000 looms, employing 60,000 persons. Carpet-weaving, cotton-printing, bleaching and dying are extensively carried on. Brewing and distilling are among the vast industries, but unfortunately consumption of these products is likewise active. Nowhere in Britain did I see taverns so plenty, and quite frequently their complement, the pawn-shop, is fast alongside.

The cathedral (about 700 years old) is the only ancient building in Glasgow—area 319x63 feet, with central spire 220, and the largest show of colored glass in Britain. The necropolis on a steep hill adjoining, contains handsome monuments to distinguished men, the most conspicuous being of John Knox, principal MacFarlane, Wm. MacGavin and Dr. John Dick. Throughout the city are monuments to Sir John Moore, Thomas Campbell, Dr. Livingstone, James Watts, Sir Robert Peel, Duke of Wellington, Sir Walter Scott, Lord Clyde, Prince Consort, Robert Burns and Dr. Graham. On Glasgow green stands a

great shaft 143 feet to the memory of Horatio Nelson. The new college (opened 1876) stands on a hill overlooking the Kelvin. It is 500x300 feet in area, with central tower and spire 300 feet in height—cost \$2,500,000. The city hall is capable of holding 4000 people and the new public hall is of still greater dimensions. Besides the postoffice and royal exchange, the city has many handsome buildings; but smoke and coal-dust have long given them a free coat of blackness. The city has three railway stations of large extent, which gives an idea of its commerce. A new suburb in the west, inhabited by the wealthier classes, pales not by comparison with anything in Britain. It has regulations of its own, and every home speaks of taste, wealth and comfort. The city water supply comes from Loch Katrine, over 30 miles by pipe, viaduct and tunnel.

Dumbarton castle stands on a rock 260 feet high, on a point jutting into the river, 15 miles below Glasgow. This great mound is no less singular in form than of interest from historic connexion; and a small garrison is kept, more for show than actual use. From here the scenery along each shore is of great beauty. Both sides are planted with small towns where rich families spend the summer. Like all watering places, houses are in the best trim, nestling among trees, the ground rising steeply behind and hill-tops clothed with heather. The coastline is broken by many lochs, running far into the land, while passenger steamers are thick on the bay, all crowded with tourists. It is not rare to see half-dozen boats in sight of each other, all filled with people in holiday trim. The 'Columbia,' over 300 feet long, 2000 h. p., speed 22 knots, is thought to be unsurpassed for speed or beauty. Rosyth on the island of Bute is particularly attractive and always crowded with strangers. Farther south is the island of Arran, with mountain scenery rarely surpassed in Britain.

Ayr lies due east from the south point of Arran, the frith here being about 20 miles wide. By rail from Glasgow, the distance is 36 miles. Ayr has about 20,000 people, and magnificent railway station opened in 1886. The inn at which Tam O'Shanter and his friends were accustomed to solace themselves is used as of old to deal out liquors. The 'auld brig' (built over 600 years ago) is yet standing, tho only used as footway. In 1778 a new bridge was built a short distance off and those familiar with Burns remember the tart reply of the 'auld brig' when its homely looks were derided—'I'll be a brig when ye're a shapeless cairn.' This prediction nearly came

true; for in 1877 the 'new brig' gave way and the present one was erected at cost of \$80,000. The Wallace tower is a handsome structure 115 feet high, erected in 1832, succeeding a former one of unknown date. The town building is really handsome, with a slender spire 226 feet, at one time the tallest in Scotland. Burns' cottage or rather his birthplace is two miles south of Ayr, a beautiful road bordered with trees, leading to it. The cottage (to which additions were since made) was built by the poet's father and now forms the middle part of the house. The walls, chimney, bed and floor of clay are I believe genuine, and the prints often seen are correct. The place is rented to a couple who exact a small admission fee and dispense various kinds of refreshments. Kirk Alloway (dating from 1516) is a quarter mile farther on, roofless; but the walls and gables are firm and the bell is yet in position. The 'winnock bunker in the east' is right there and the whole relic appears capable of withstanding the footfall of centuries to come. A magnificent tree grows in the area and remains of several persons are planted where (according to Burns) unclean spirits were accustomed to hold nightly revels. The kirk is a small affair, perhaps 60 feet from the road, and directly in front of the gate lie the remains of the poet's father and mother—also of Mrs. Begg, his youngest sister who died in 1856. The enclosure is small and crowded with citizens of a past age. Right across the road is new kirk Alloway, built in 1857—a neat handsome structure resembling somewhat St. James' church in Charlottetown. Alloway village (of which no trace exists) stood between the kirk and cottage. Some 200 steps farther is Burns' monument, erected in 1820 at cost of \$15,000, Greco-Roman style and 60 feet in height. A room in it contains a marble bust of the poet, the bible he gave to Mary Campbell, a ring, ms. of poems and other souvenirs. The grounds (over an acre) are nicely laid out in flower-beds and walks, and contain a statue of Shanter and Souter in a grotto. The pile is largely due to the exertions of Mr. Boswell of Anchenleek, by whose advice a meeting was called at Ayr to consider the matter. So little interest was taken that he himself was the only one present; but feeling assured the enterprise only needed starting, he voted himself to the chair, moved, seconded and passed a resolution that a monument be erected. The meeting was dismissed without the usual vote, a report of it and of the resolution appeared in the papers, money began to come from all parts, and soon the work was undertaken and in due time completed. The 'brig

O'Doon' is about 100 steps distance, one arch 60 feet span and perhaps 30 feet above water. The stream is about 20 yards wide, some dozen feet below general level, quite shallow with a fringe of trees along each margin. In 1816 a new bridge was built 100 yards down stream and the 'auld brig' was sold to the contractor for the sake of materials. But public sentiment rebelled and the bargain was cancelled. Apart from classic associations the spot is beautiful and romantic—a chosen ground for picnics. A Mr. David Auld who had retired from business, built a small octagon structure on the river flats between the two bridges, and covered the inside with shells of almost every variety and bigness. Large mirrors are placed so as to magnify the dimensions and multiply the effect. His last years were spent in adorning this pavilion and beautifying the grounds.

While travelling in this section one is constantly hearing the train hands, as they rein up the iron-horse, shout—'Irvine!' 'Kilmarnock!' 'Cumnoc!' 'Mauchline!' 'Sanquhar!' and other places associated with the life and songs of Scotia's poet. Irvine has about 7000 people and considerable manufactures. Kilmarnock (not far off) has 24,000 people and extensive manufactures. The first edition of Burns' poems was printed here in 1786. Mauchline on the Ayr has about 2000 people. The poet lived on a farm at short distance. The village has a monument to five covenanters who suffered here in 1685. Dumfries, about 60 miles south-east of Ayr, is on the Nith, crossed by two bridges, one dating from the 13th century. Burns lived here from 1791 till his death in 1796, and the house was occupied by his widow till she passed away 38 years later. The Burns mausoleum was erected in 1817 near the church he attended. It is a small Doric temple, surmounting the vault, the whole costing \$7000. Besides less important mementos, it contains a marble statue of Burns at the plow, with Coila casting over him a mantle. In the Globe tavern (a favorite haunt) his chair, punch-bowl, cane and writing-desk are preserved; also the chair and work-box of his wife. On a pane in a window is a stanza written by him in praise of folly. All those are readily shown without charge, tho a gratuity is no doubt expected. A fine marble statue of the poet was placed on High street in 1887.

THE NETHERLANDS.

Early in June I crossed from Harwich (on east coast of England) to Rotterdam in Holland—distance over 200 miles. Before commencing my rambles I will give a short notice of the

country, hoping the description will not weary the reader. From north to south the extreme length of Holland is rather less than 200 miles, from east to west 110 miles. The population is above four millions, about two-thirds Protestant, and both denominations receive support from the state. The country is much cut up by rivers, streams and canals; and being below water level, large sections have been overwhelmed during storms. In the extreme north, Dollart bay (7x10 miles) was formed by invasion of the sea 600 years ago, causing the destruction (it is said) of 33 villages and the death of 10,000 persons. In the north-west, the Zuyder Zee (35x80 miles) was formed by a similar invasion. Every precaution is taken to preserve the dykes and sea-walls. Storks are protected by law as they feed on small animals that burrow and injure the defences. If a dyke break an alarm bell sounds and all within hearing rush to the scene, carrying faggots, sails and anything calculated to impede the rush of water.

Holland is eminently a grazing country, noted for its white cattle, butter and cheese—the latter made perfectly round like cannon shot. [So far as my observation went, 3 p. m. is the hour for milking.] Herring fishing is an important industry, commencing on June 15th. On the 14th fishermen raise their flags and attend church to pray for success; on the 15th they set out, those on shore spending the day in pleasure. Arrival of the first boat is eagerly watched from church steeples, and the first keg of fish put up is sent to the king. The Zuyder Zee fishing alone is said to employ 1350 boats and about 5000 persons—the catch some seasons exceeding 30,000 barrels. The Dutch excel in their mode of curing fish. The herring are eaten raw, as they claim cooking would spoil them.

Holland has no large manufacturing centers, but small ones are numerous. In proportion to size of country and number of people, the public works of Holland take a high place. A ship canal (51 miles long) from Amsterdam to the Helder was constructed 60 years ago; and 40 years later a canal 16 miles long, giving more direct route to the North Sea, was built at cost of \$11,000,000. But the sale of 12,500 acres of land (reclaimed by the work) reduced the cost to half that figure. In 1838 they drained nearly 15,000 acres near Rotterdam, the work costing about \$100 an acre, the land being sold for a small advance on the cost. Encouraged by this, government voted more than \$4,000,000 for draining Haarlem lake 45,000 acres and 14 feet average depth. This great work was begun in 1840 and finished

in '52; after which the land was surveyed and sold at about cost figures. All reclaimed lands in Holland are for 25 years free from tax, but a rate of \$1.60 per acre is required to keep engines, canals, dykes and bridges in repair. The lake-bed is kept dry by enormous pumping engines, and any hitch in the machinery would soon flood the section. Some years ago government voted over ten million dollars for reclaiming a section of the Zuyder Zee, 487,000 acres in extent—quite an addition to a small congested country. It was proposed to build a breakwater across the bay where it is only 28 miles wide, with average depth of ten feet. The structure was to rise far above ordinary tide, and the material was to be granite from Norway. Whether the undertaking is in progress or not I am unable so say.

The Dutch are of Teutonic origin, like Germans, English and lowland Scotch. Their language is a dialect of low German, and its vocabulary contains many words used north of the Tweed. I found but little difficulty in reading Dutch newspapers, but learning to speak the language is quite another matter. English is taught in their high schools, but the pronunciation is bad.

The climate of Holland is damp, changeable and the sky generally overcast. The average of bright days in a year is given at 40, with 170 on which rain falls. There is not much snow in winter, but the cold is intense. The country is then covered with ice, and from the least to the greatest, all move on skates.

Holland is without natural forest, but plantations of beech, oak and elm are frequent. In the parks, beech trees may be seen smooth as ships' masts up to 60 or 70 feet. In Belgium, tracts of sandy barren are planted with pine and oak. When of proper size the former is used for railway sleepers, the latter, when four or five inches thick, are cut and the bark peeled off for tanning. Near the coast the soil is mostly peat mixed with sand. The farms are small and the principal crops rye, buckwheat, barley and oats, besides potatoes, flax, hemp, rape-seed, beets, hops, tobacco and mustard. Some wheat is raised in the south. Vegetables, berries and all kinds of small fruit are in great abundance.

The history of Holland is interesting beyond that of other countries, the 16th century being the stirring epoch. Spain at that time stood first in wealth and power, and by evolutions of history Holland came under Spanish yoke. Philip II. (one of

the blackest fiends and bloodiest tyrants) was not satisfied with allegiance in the ordinary manner—his subjects must act and believe as he wished. The people, like a worm trod upon, rose in defence of conscience and rights—but how unequal the contest. On one side were disciplined troops in thousands and gold mines without bottom; on the other, unarmed peasants from field and market. The result may be guessed—the carnage was terrible, scarcely surpassed at taking of the Jewish capital. Blood, fire, destruction were the orders issued and they were faithfully enacted. The inquisition in its worst form had full scope and treachery of the foulest description was resorted to when other means failed. After nearly a century of bloodshed, the Dutch republic of seven federal provinces was completed. But the insignificant state (born in midst of carnage) soon became strong, and during a century ruled the waves.

In 1806 the Netherlands were made a kingdom by Napoleon for his brother Louis; and in 1810 it became a department of France. From 1813 to '30, Holland and Belgium were united, the latter becoming independent at that date. Like ourselves, the Dutch had a stand-up fight on the question of separate schools and I am not sure the matter is entirely settled. Education is paid by the state, except the teaching of foreign language, for which extra charge is made. The hours of school attendance are the same winter and summer: from 9 to 4, with an hour off at noon. Music is taught from 7 to 8 p. m., gymnastics from 7 to 8 a. m. school every Saturday till noon.

Rotterdam with 160,000 people is to right of the Maas, about 20 miles from its mouth. Before arriving, the small town of Brielle is seen to right: here custom officials come on board to examine luggage. Brielle was the first place taken from the Spaniards in 1572, was in English occupation from 1585 to 1616, and was the birthplace of admirals Van Tromp and De Witt. The most noted feature of Rotterdam is a quay over a mile along the river, the depth of water being 40 feet. A row of elms planted on it in 1615 are now great trees. Like most Dutch towns Rotterdam is intersected with canals and about the first thing one sees on going ashore is a man towing a canal boat, his dog hitched to the line and pulling with all his might. Dogs are nearly always in harness, ready to pull on a towline or haul a milk-cart. Everything looks strange to one from this country—windmills, canals, high bridges, wooden shoes and the curious head-gear of women. I understood that 60 windmills

might be seen from the same position, but I failed to see quite so many. Brick is the material for building, and roofs are covered with red tiles. In older parts of the city streets are narrow, and the houses look odd; in newer parts, streets are wide, clean and the buildings handsome. In 1825 a high tide did much damage, and now basements are made water-tight to prevent similar loss in future. The Groote kerk (great kirk) is an immense brick structure, dating from 1542 and the most noted building in Rotterdam. It has numerous monuments to distinguished men, but they were defaced by the French during their occupation of Holland. The tower (nearly 300 feet high) affords a good view of the country. The city hall is quite handsome and there is an elegant pile of public buildings, besides marine hospital for 250 patients. Over two dozen lines of steamers run between Rotterdam and various parts of England, and the place has extensive trade with the East Indies, the chief imports being coffee, sugar and cotton. It has over 40 distilleries, 58 windmills, 10 sugar refineries, besides important manufactures. It has picture galleries, museums, zoological garden and a fine park. The railroad passes through the town on a viaduct supported on immense iron pillars 12 or 15 feet above street level, resembling somewhat the elevated railway in New York. The distinguished scholar Erasmus who first translated the New Testament into Latin was born here in 1467. The house is yet without flaw or blemish, showing the excellence of Dutch work. A bronze statue of him stands on a bridge in 'the great market.'

Three or four miles by rail and we are at Schiedam, a place of about 23,000 people, celebrated for its manufacture of gin, known here as 'Schnaps.' It has 270 distilleries, producing yearly about ten million gallons of the stuff. The refuse from 60 maltheuses feed more than 30,000 swine, and many horned cattle. It has some two dozen cooperages and a stearine factory, using yearly more than 3,000 tons of tallow and palm oil in manufacture of candles, glycerine and like products. About half-dozen miles from Schiedam brings to Delft, with 26,000 people—a place long ago noted for earthenware manufacture. Here William Prince of Orange was assassinated by order of Philip in 1584, in a house now used as barracks. 'The new church' contains a fine monument of the Prince, and the tombs of Grotius and Van Troin are in another

A few miles from Delft and we are at the Hague—called Scraevenhage in the country. It is by far the handsomest town

in Holland, the home of royalty and seat of government—the streets are wide and clean, the parks magnificent. The cathedral (used for Protestant worship since 1715) has a chime of 38 bells, its steeple 360 feet high. The picture gallery has some fine paintings by Dutch and Belgian masters, the most famous by Paul Potter and known as 'Potter's bull.' The subject is a young short-horn, a veritable 'speaking likeness,' well deserving the celebrity it has acquired. The national monument to Dutch independence (1813) is a splendid piece of sculpture, and there are several fine monuments to 'William the Silent.' Adjoining the city is a forest of great beech and elm trees, intersected by walks, drives and paths, lakes, fish-ponds and canals. Near the center is a royal palace, not inhabited except by custodians. The rooms shown are elegant and cheerful—walls adorned with satin hangings and floors covered with rich carpets. Some of the ceilings are said to have been painted by Rembrandt and his pupils. In the picture gallery hangs a portrait of John Lothrop Motley (author of an imperishable work on the Dutch republic), born near Boston 1814, died in England 1877. At night the forest is lighted with lamps hung among the trees. In and near the Hague are several palaces and royal seats.

The Hague was (in 1650) the birthplace of William III. of England, and in 1629, of Huygens, a philosopher scarcely less distinguished than Newton. Here was beheaded in 1619, John of Barneveld, a man of great ability and virtues. The struggle with Spain had developed such a spirit of heroic defiance that his wife refused to sue the Spanish tyrant for pardon, though receiving intimation that her petition would be accepted.

Like all Dutch towns canals are numerous, generally with a row of lime trees along the margin. There being no protection and inhabited houses within a few yards, I inquired if parents were not kept busy fishing their young ones out of the water. I was informed that no accident of that kind ever happens—verily those Hollanders are wise from the cradle. Sometimes a small flat is used for crossing. A person steps on board, gives the canal side a kick and presto he's across. [This arrangement, in communing with myself, I named a 'kick-ferry.'] Some bridges rise high above the street level and canal boats pass under by lowering the mast, which is always hinged at deck. Other bridges swing aside like a gate to allow boats a passage—each paying toll. Canal boats are from 50 to 60 feet long, with a capacity of 30 or 40 tons, absurdly blunt and of great strength and weight. They answer the purpose of trucks, and are usually

laden with peat, brush, firewood, grain, brick etc., generally moving from place to place till the cargo is disposed of. Frequently a canal-boat is fitted up as travelling store, stopping in front of houses whose inmates can step on board and make purchase. The owner and his family live on board, the hinder part being fitted up for dwelling. An old sail is used as awning, and under it in fine weather the family may be seen cooking, eating, sewing, washing as occasion requires. Some boats have houses on deck, and from peeps through open windows, they appeared comfortable and tidy as dwellings on shore. Curtained windows, easy chairs, canary birds, flowers in pots and vases, hanging lamps with porcelain shades, and perhaps closer inspection might discover an organ or piano. But these high-caste barges are not of frequent occurrence. When the craft is underway *mien vrou* is at the helm, the master working the ship. Women are often seen at the hardest and meanest kind of labor on these barges. During early part of the day women are washing and scrubbing, while small Dutchmen are counting their toes in cradles or crawling about the deck. In afternoons, when everything has been put right, these ladies may be seen paying and receiving visits, exchanging gossip and no doubt swapping fibs. Social distinction is (you may depend) sharply observed—ladies in deck-houses refusing to mingle with less fortunate sisters who enter the cabin by a ladder. Smaller boats are used to bring vegetables and other stuff to market; and on one occasion I counted over 70 of them in about 90 yards of canal, wedged closely together crosswise leaving a passage for others at the stern. These canal people greatly interested me, and on returning to the hotel I began to interview the proprietor about them; but with a look of supreme disgust he informed me they were not recognised as belonging to that aristocratic city—they were, he said, people without home or country.

The Hague is three miles inland and a village of hotels along the shore is a busy spot in summer. Sand ramparts (the only hills in Holland) are here about 50 feet high, sloping steeply toward's the water. A kind of grass grows on them, the roots of which bind the unstable material and prevent its dislodgement. At low tide a large extent of white sand is exposed, and this space was occupied by hundreds of pleasure seekers. Scores of tents with gay pennons, hundreds of tall wicker chairs, a street of booths for the sale of toys extending out near the water—made a gay picture that clear afternoon. The day

was hot, but a refreshing breeze came in from the German ocean. Near by, 60 large fishing-boats were hauled ashore, propped on even keel and preparing for use on the morrow. A long, gay streamer fluttered from each mast-head—a really curious sight till one remembered it was June 14th when every craft on sea or shore must sport a pennon. A condemned craft was being reduced to pieces and I noticed the timbers were large enough for a vessel four times its dimensions. Why boats are made so heavy, blunt and unwieldy remains one of the undiscovered problems—except that in these countries there seems undying reluctance to deviate from any scheme once established by habit.

The ground in Holland being perfectly flat the railways lie on the surface—no grades, no curves, no cuttings, no tunnels. Yet one sees but little from the car window, as the track is usually bordered with bushes, while plantations of willow obstruct the view. Ten miles from the Hague and we are at Leyden, with 40,000 people. Near the center stands a ruined tower, known as the Burg—its highest part rising about 60 feet. There is no authentic record of its origin, and whether of Roman or Saxon ancestry remains uncertain. Leyden has a lovely park and its museums of natural history and antiquities are among the first of their kind. In the botanic gardens I saw several plants and flowers for the first time. The sensitive plant shuts its leaves like a fist when an offer is made to strike it; and the diamond plant when placed in water resembles exactly a precious stone of rose pattern. A remarkably fine weeping beech was among the attractions.

The siege of Leyden forms one of the most stirring chapters in the world's annals. It is stated that when Valdez the Spanish commander sent an insulting message demanding surrender, they replied—'We'll eat our left hands when provisions fail and defend our liberties with the right.' In five months provisions did fail, and it is said that dogs, cats and rats were used as food. At this extremity a carrier pigeon flew over the ramparts with glad tidings that Prince of Orange was coming with 200 boat loads of food. But unfortunately the rejoicings were brief—the dykes were cut, but there was not sufficient water, and the people were goaded to madness by seeing from the Burg supplies that were unable to reach them. All now became frantic—further hope appeared useless. Cries for bread rose on every side, accompanied by urgent demand to surrender the city. To all appearance no condition could be

worse than the present—could their foes be more relentless than famine? But the burgomaster (mayor) was unyielding—he knew the black-hearted treachery of the Spaniards, and his reply was—‘I have sworn to defend the city and by God’s help I will preserve the oath. If my flesh afford you relief, let the most hungry take it. But while life beats in this body my reply to the foe shall be, no surrender!’ In the world’s history of wars, sieges and bloodshed is there anything on record more grandly heroic than the words of this (I had almost said glorious) Dutchman. As hero and patriot, no name should have higher position. Relief came at last, but not till many had fallen a prey to famine. A violent north wind raised the waters, driving off the besiegers and floating provisions to the famishing people. No wonder the date of deliverance (October 3, 1574) is yearly observed in the city. Leyden is a noted seat of learning, as well as a chief mart for manufacture of woolen goods. It was here in 1607 the artist Rembrandt was born, and several other painters of less standing. From Leyden the Puritan fathers set out in 1620, tho they embarked at Delfthaven.

Haarlem with 36,000 people and 18 miles from Leyden was my next stopping-place. The track passes over the bed of Haarlem lake (noticed already), but one sees little to indicate the fact. Ditches or canals are everywhere alongside, and the land is generally used for hay or pasture. The water is kept down by immense pumps and any hitch in the machinery would soon flood leagues of country. Adjoining the town is a forest of beech, elm and oak trees, their giant arms meeting 80 or 90 feet above ground, resemble the arches of immense cathedrals. Walks, drives and avenues are everywhere, affording delightful shade in hot weather. On Sundays the place is alive with well-dressed people, listening to bands and watching the fountains.

The ‘groote kerk’ (great kirk) is a large and ancient brick structure—its floor consisting of memorial slabs sacred to citizens of a past age. Near one end, a part used for worship is enclosed to a height of four feet and has a pulpit (with sounding-board) and pews. Men and women sit on opposite sides, and in taking collections two plates are carried round, one following the other. Fastenings are strung together and a deposit is made. The service over, people don their hats and stroll about the church, which is large enough to hold an exhibition. Near the other end is a similar enclosure without seats, where marriage knots are fastened—an arrangement common in all

Netherland churches. Three toy-ships are suspended from the ceiling, the significance of which I failed to discover. A cannon shot embedded in the church wall remains as evidence of the siege to be mentioned later. An organ in this church was long noted the best in existence, but scores of instruments now surpass it in tone and compass. It is said to have 5000 pipes, is 34 feet high, and is probably 80 feet from floor to point of finish. On top are the arms of Holland (lion rampant each side of crown and shield), with motto in Latin beneath; lower down on left, king David playing a harp, on opposite side one playing a lyre; still lower, an angel on each side blowing a trumpet. It is crowded with decorations of which those mentioned are almost nothing. The date of manufacture (1580) is marked in bold figures. It is stated that Mozart played on it at ten years of age, that is in 1766. Near the church stands a bronze statue of Coster, who it is said was the first printer.

Haarlem was besieged by the Spaniards in 1573, and at the end of six months, when perishing by famine, they resolved on cutting their way out. The Spaniards hearing this offered a pardon on condition of surrender. Receiving this offer in good faith the terms were accepted; but Alva with the foulest Jesuit treachery, destroyed the garrison and butchered 2000 of the people. From this Leyden learned that death was better than placing confidence in a treacherous foe.

A dozen miles farther brings to Amsterdam with 360,000 people, the most populous city in Holland. It is built at south-west point of the Zuyder Zee and is a curious network of canals, rivers, drawbridges and water-gates. The greater part is built on piles, in the form of a horse-shoe, divided by streams and canals into 90 blocks or islands. Of its 300 bridges, one is 600 feet long with 35 arches, some of them passable by ships. The newer parts of the city are quite fine, but the older section is a rookery. The town is well defended by forts and can be flooded in case of invasion. The town hall (built 250 years ago) was changed into a royal palace in 1803 by Louis Bonaparte, then king of Holland. The building is 260x206 feet and 108 feet to summit, the foundations said to consist of 3,600 piles driven 70 feet in the mud. The throne room, state bedroom and several others are quite handsome. The ceilings are very fine, some of them painted in figures and others painted to represent relief in sculpture. The Shah of Persia was to arrive here after-noon and I therefore saw the place in its best condition. It stands in the business center, without a tree

or shrub in sight—no wonder the late king preferred to live elsewhere.

Amsterdam has many old churches, some dating from the 13th century. The 'oude kerk' (old kirk) is a massive brick structure with internal arrangements similar to St. Bavon's at Haarlem. It has some fine stained glass windows, and the organ-loft displays superior workmanship. Several fine monuments are badly defaced—a result of zeal during 16th century troubles. I attended preaching on a Sabbath afternoon and found the service little different from Presbyterian worship. The exercises consisted of two sermons one following the other, and the tunes were of the 'martyrdom' and 'old hundred' style—very soft and plaintive. The preacher seemed greatly in earnest and I have no doubt his discourse was effective. At the close he baptized 22 infants, first reading from a book a formula respecting the rite. The act was performed by dipping his hand in water and three times touching the child's forehead. The prayer at close was exceedingly earnest—at least I so inferred from the preacher's tone and manner. On coming in, all engage in silent prayer before sitting.

The zoo gardens, picture galleries and museums of Amsterdam are justly noted. In the former are white peacocks, white turkey fowl and a white crow. Here for the first time I saw fat-tailed Syrian sheep. An aquarium in the grounds (besides the usual variety of fishes) contained specimens of anemones, king crab, hermit crab, sea-horse, and the familiar crustacean vulgarly known as lobster. In the museum of antiquities I saw the 'Chinese ivory puzzle,' which is simply a number of ivory balls cut inside of each other. The city has a nice park, formerly a vile shaking bog, which industry and skill made a scene of beauty.

Amsterdam has long been noted for diamond cutting; a man named Coster employs about 400 hands and has no rival in the trade. Of 180,000 carats that yearly come to Europe, Coster is said to buy one half. It was he who cut and polished the famous kohinoor, which has a place in the British crown.

In one of the Amsterdam prisons criminals (as is said) were formerly compelled to saw wood. If refractory they were put in a cellar into which a stream was constantly running, so they had to pump lively or perish. The *spinhuis* was part of the same concern intended for women. Husbands sent here vicious consorts to teach them proper habits; whereas a wife could place her spouse in another section on proof of grave misconduct.

About six miles from Amsterdam is the village of Broek, thought to have no equal in the world for neatness. No horse is allowed on the streets, shoes are left at the door and the most inveterate smoker dares not indulge in the house. Cow-sheds are also natty, as besides cleanness, there are hooks and cords to keep the cow's tail in sling while milking.

Utrecht 20 miles south of Amsterdam, is an interesting old place with about 70,000 people. It is different from other Dutch towns in being above sea-level. The old ramparts have been partly levelled and form attractive promenades round the city. A splendid avenue half mile long (six rows of lime trees with driveway and paths between) is a noticeable feature. A stream runs through the town, eight or ten feet below pavement level, the sides built like house walls, with windows and doors at intervals. These excavations are used for storage and in some instances as dwellings.

The cathedral is a massive structure dating from 730, with ceiling 100 feet high. Over 200 years ago a violent storm demolished a part, and at present the tower (formerly at the end) is about 150 feet from it. The stained glass was destroyed and monuments were defaced during the 16th century troubles. From the tower (320 feet high) most of Holland may be seen.

At Utrecht in 1579 a confederation of the seven provinces was effected; and in 1713 a treaty of peace was concluded at close of the wars of Spanish succession. The city was also headquarters of the Jansenists who caused so much disturbance 250 years ago.

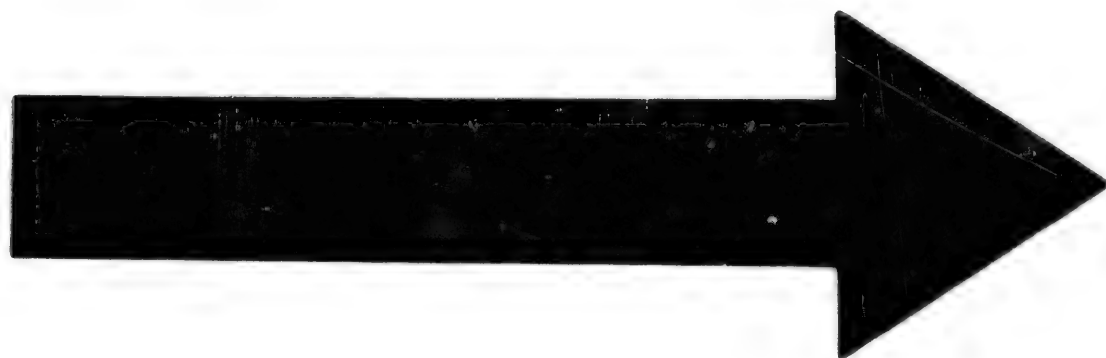
Zeist, an interesting village some miles away, is much frequented in summer. A tramway takes passengers out for a trifle, and the route is one of the most pleasant I ever travelled. Water in form of lake, stream or canal, fine avenues, ornamental grounds, flower gardens and lovely pavilions are nearly always in sight. The village consists principally of hotels, is surrounded by forest and avenues of great beeches.

Dort is an ancient looking place, twelve miles south-east of Rotterdam. The river Maas here resembles an inland sea, studded with islands, the town being on one of them. Till within 450 years much of what is now covered with tide was cultured fields, dotted with cattle. The bursting of a dyke overwhelmed 72 villages, causing the loss of 10,000 lives and many thousand cattle, Dort, as by a miracle, escaping. The town has about 30,000 people and is perhaps more Dutch than any in the low countries. It has an active trade and deals largely in timber.

Great rafts that come down the Rhine from Switzerland and the Black forest are here broken up and stored away to await the needs of commerce. Some of them are 300 yards long, worth \$50,000 and managed by crews of 50 to 100 men, having their wives and families on board. Here are many sawmills, salt and sugar refineries and factories of tobacco. At Dort (in 1572) the states-general held first meeting after the country had rid itself from the Spaniards; and here in 1618 a church synod, after long deliberation, pronounced Arminius a heretic.

Much of the land being too damp for anything else, is used for raising osiers or willows. These are among the staples of Holland, grown in great abundance and applied in many ways. Besides the wicker-work along margins of canals and streams to keep the soil from washing, they are made into baskets, creels, chairs and hampers. A few miles from Dort the train crosses a bridge three-half miles long with swinging gate for vessels. We are now in south Holland, a really beautiful land with evidence of good culture. Fine crops of rye, wheat, peas and roots, tall church spires in the distance, red-roofed villages abundant, peat-digging in fields which had been tilled for centuries, roads along dykes with a row of trees each side, boats and barges seen at small distance appear to be sailing on land. Breda has 16,000 people, some old churches and a chateau built by William III. of Britain. In 1590 the place was taken from the Spaniards as follows: Eighty soldiers got into the garrison in a boat under a cargo of peat. At night they crawled out, speared the guards and seized the citadel.

We are now advancing into Belgium—canals and windmills disappear and roof tiles are of different color. Much of the soil is sand and plantations of pine, oak and fir are frequently passed. Belgium carries on largely the business of tanning and young oak trees (four or five inches thick) are cut down and peeled for that purpose. Great piles of the peeled wood are at railway stations, and whole trains laden with bark are frequently met. As Antwerp is neared the country looks more productive—larger fields and better-looking crops. Antwerp is a noted old town of 173,000 people, on the Skeldt, here half mile in width. The cathedral is chief lion, rated the finest Gothic church in Belgium and only surpassed by few in any country. It is a massive brick structure, 400x250 feet in area, over 500 years ago founded. The spire (400 feet) is a marvel of sculptured tracery and considered by many first of its kind in Europe. Seen from the river it is extremely imposing. The largest of its 60 bells



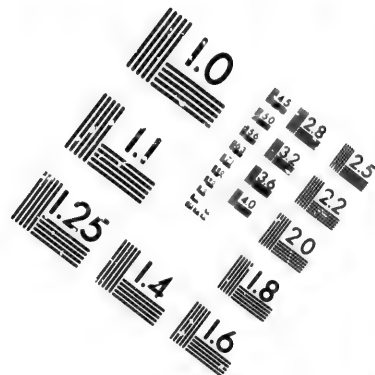
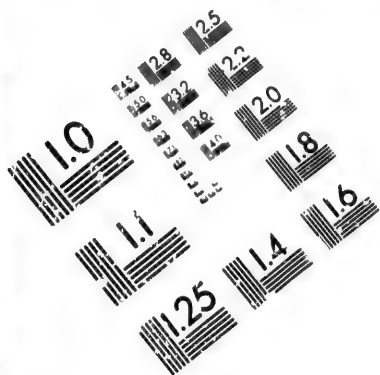
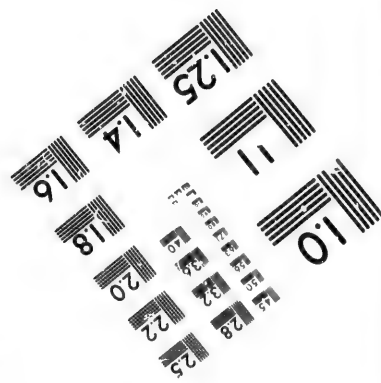
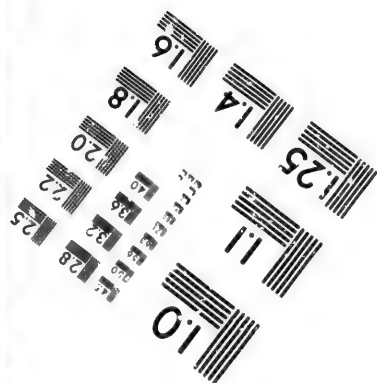
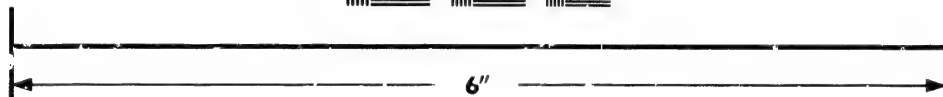
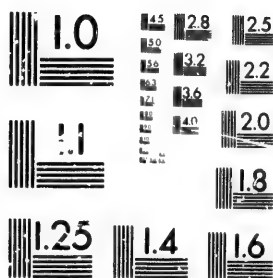


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weighs eight tons, 16 men being required to ring it. The church contains some of Reuben's best pictures—the 'descent from the cross' is protected by folding doors and only seen on special occasions, while a painting on the rotunda has an area of 300 feet. The choir (of carved wood) is singularly fine, showing no end of patience and skill in cutting. The pulpit is of similar make and is an extraordinary work. It appears a mass of foliage, supported by symbolical figures of Asia, Africa, America and Europe, with monkeys, birds and beasts skulking among the trees. Confessionals with life-size figures are also of carved wood. The high altar is of marble, fairly ablaze with precious metals and surmounted by a gorgeous canopy. Dozens of life-size figures in carved wood are throughout the building. This grand old fane with the world's masterpiece of art, is closely built round by mean dwellings and shops, defeating the stranger's attempts at entrance. At first the spire leads him, but on nearer approach the whole disappears as by magic. He goes round and round but finds no grand portal, sees no Gothic windows, nothing but mean stalls of cobblers and hucksters. What has become of the pile that a minute ago stood forth in giant proportions? He retreats the way he came till the spire strikes his vision, takes sure aim and boldly advances; but as before, the temple has vanished. He tries a third time, surrounds the block as before, at last inquires for the *Dom* and is given directions.

The church of St. Jacques has a square tower of good height. The pulpit and choir are of carved oak, the ceiling above them being very handsome. The high altar is gorgeous beyond description, and above it an extremely gay figure of the Virgin. In the alterpiece (by Reubens) the artist introduced pictures of himself, his two wives, his father, grandfather and son; as St. George, Martha, Mary, St. Jerome, time and an angel. Behind the high altar is Reubens' chapel, the painter's tomb shown by a slab in the pavement. The church has fine stained glass windows, and the 16 side chapels have pictures by old masters. Antwerp has many other churches of note, besides museums and picture galleries. In one of these Reubens' chair is preserved under glass cover. Here he was born in 1557, and here he died in 1640. What Burns is to Ayr, Reubens is to Antwerp—his works are reckoned at 1500.

About 500 years ago Antwerp was rated first commercial seat in Europe, and one of its best fortified cities. But its prosperity received a check when captured by the Spaniards in 1585,

when its population was about double its present status. It was to Antwerp Tudor kings and queens were accustomed to send for money when the exchequer ran dry; and from it the first English Testaments (translated by Tyndal) were sent to London. The exchange of Antwerp (built in 1530) was the first of its kind, and formed a model for that of London and for a similar institution in Holland. Not far from Antwerp reside a peculiar set of monks called Trappists, who dress in sackcloth, shave their heads and never speak from time of entrance. Their food consists of coarse bread, milk and vegetables, all from their own tillage; and in the garden an open grave is always ready for the next brother.

Dogs are largely used for draft in Belgium and Holland. They don't appear of any special breed and few of them are above medium stature. The carts are heavy and clumsy, the wood in them being nearly as heavy as in horse-carts with us. Their principal work is hauling milk and vegetables from the country and peddling them through the streets. They draw wonderful loads for their size, and when going up hills, run and yelp till the summit is reached. One morning at Antwerp I counted 68 teams on about 60 yards of street. They had brought from the country loads of vegetables and eggs to market, and were all lying down on the curb as if greatly exhausted. Counting noses, there must have been at least 160 canines. The market business was run entirely by women, assisted by those faithful allies. Except for apparent meanness, the dog is (in a small way) a cheap and active motor. He requires no stable, is not liable by running away to cause damage, the iron-horse gives him no alarm, and with a pliant conscience, he gets most of his living by theft. In European countries dogs are required (when out on parade) to wear muzzles, to prevent their tasting one's legs on the street.

From Antwerp to Brussels on June 22nd, distance 30 miles, scenery agricultural and pleasant. Here is in brief what I saw along the track—clover fields and people mowing; next, fields of ripe barley; great stacks of brushwood, bound in faggots like sheaves of grain; plantations of young oak and maple. Now the country is entirely under vegetables intended for city markets; then fields of rye and barley about ripe; next, plantations of maple, pine, oak and other trees; the country dead level till nearing Brussels, the environs of which are quite hilly. This city is one of the finest in Europe, and reminds one of the French capital even without knowing that it is styled 'little

Paris.' The upper section has wide streets and handsome buildings, contains the king's palace, public offices, foreign legations and the abodes of wealth and fashion. Fine wooded parks are along the environs, and the old city walls have been levelled to form attractive promenades. The botanic gardens are an interesting feature, with extensive palmhouses for tropical plants. French is the ruling language and English is to a small extent spoken. The town is an active seat of manufacture, but of the carpets and lace that bear its name, the smaller number are made in Brussels.

The cathedral is a massive old fane of dark-red sandstone, Gothic in style and dating from the 12th century. Its windows of stained glass are by some rated the finest in existence—Philip of Spain and his consort, queen Mary, represented among the figures. The pulpit of carved wood is highly curious, representing the expulsion of the first pair—all the figures being of life stature. The tree of knowledge supports the desk and among its branches birds and monkeys are seen at play. One of the side chapels is extremely fine and contains an altar of carved wood said to have cost \$5000. All through the building are noted monuments and pictures. Some eight or ten other churches in the city are deserving of notice. The town hall ranks among famous buildings, 450 years old with spire 364 feet; rated among the world's finest steeples. The council chamber is really grand, with painted ceiling in high art. Here the patriots, counts Egmont and Hoorn received sentence and on the square outside were beheaded, June 5, 1568, an additional proof of the malignant nature of Philip and the equally infamous Alva. A splendid monument to the patriots stood here till removed to another part of the city. The ballroom is also handsome, and some claim that on its oaken floor a memorable dance took place 'just before the battle.' But three other sites claim the honor, whereas some contend that no such frolic took place—that the story is all moonshine.

The palace of justice is a grand architectural effort; stands on a summit, covers more than three acres of ground, rises in terraces ending in a cupola about 260 feet from the base. The interior is supported by a dozen square pillars, 12 feet each side, and about 80 fluted columns 6 feet thick. Tesselated floors, great wide stairs of easy ascent, everything grandly massive. The smallest noise reverberates through the place for seconds—indeed there is always a sound as of wind through forest. The cost is given at \$12,000,000.

Brussels has many other buildings of note. The king's palace, tho of plain exterior, is handsome inside. The ancient ducal palace is used for purposes of art, and in the neighborhood is a royal palace, for sometime residence of Josephine, first wife of Bonaparte. The town is well supplied with picture galleries and museums. The natural history museum contains the skeleton of an extinct reptile about 36 feet long, one-half being tail. The thigh bone of a dinosaurus is seven feet long, 52 inches round the larger end and about 36 round the middle. The animal when alive is thought to have been 60 feet, so the name (terrible lizard) was not misapplied. The vertebrae of an extinct lizard, found in the neighborhood, is about 52 feet, with some joints wanting. Models of moa eggs are 18 inches long and large in proportion, each weighing when fresh over 20 dozen from a barnyard biddy. The moa was a New Zealand bird, fossil remains of which were found over 50 years ago. It was thought to be extinct till in 1876 two specimens were captured—a female eight feet high and a young one about five. Tho scarcely equal to the ostrich in height, its bulk is much greater—as fossil bones have been found equal in size to the timbers of an ox. The antiquarian museum contains an interesting collection of arms and armor. Breech-loading cannon 300 years old, revolver nearly as ancient, stuffed skin of the horse Prince of Orange rode at Austerlitz and Waterloo, armor and mantle of Montezuma, emperor of Mexico when taken by Cortez in 1520, model of the Bastille at Paris, and thousands of interesting objects.

Brussels had a chequered history. In 1567 the tyranny of Alva drove away ten thousand mechanics who found a home and welcome in Britain. In 1814 it became capital of the Netherlands, and in 1830 of Belgium when separated from Holland. A pillar 156 feet high on a commanding position (with statue of Leopold on top) commemorates that event. At the base are four bronze lions of immense proportions.

On June 24 I paid a visit to Waterloo, about 12 miles south of Brussels. The intervening country is hilly—parts under rye, wheat and barley, parts sandy barren, then wood plantations and the forest of Soignies. We quit the train (a party of us) three half miles from the scene—day hot, roads dusty, no fences, no hedges, so we make short cuts through fields of wheat, rye and buckwheat. The soil is light and sandy, gentle hills—no part level. Hugomont, on rising ground, was a gentleman's chateau, consisting of residence, farmhouse and outbuildings.

The farmhouse is occupied by an old lady who claims to have been three years old at time of the battle. The yard has two wells, one with iron windlass, chain and bucket, the other has no such appliance. It has not been used since the 18th of June, 17 years ago when it was kept unduly busy, and at night was filled with corpses. The yard was keenly contested, but was throughout held by the allies. Napoleon would have swapped a kingdom for that acre, as its possession might decide the battle and make him arbitrator of Europe. To east of this were the garden and orchard, and south of these ran a wall of brick, said to have been taken by the French for British lines and to have been closely peppered. Opposite this on rising ground, a battery commanded by Napoleon's brother, began the action. In the garden and orchard the struggle was hottest, changing frequently between the contending parties. The slain here were in heaps and the ground became a teeming bog with human gore. Here 1500 were heaped into one trench—no wonder the wheat and clover grew rank for seasons after. For years succeeding that dismal Sunday, grass and grain rose in luxuriant bunches over the wide area on which the battle coursed. Never was soil enriched at higher figures.

It would be folly to attempt describing the various movements during the battle. It began at 11.30 and at 5 p. m. victory seemed to hold an even balance. About this time the advancing columns of Blucher began to appear, led by generals Bulow and Steinmitz. Napoleon seeing how matters stood, ordered an advance of the imperial guards to force the allied position. These were picked men whose rear no enemy saw in battle; but met by a storm of musketry and grape, they were thrown into confusion. Both commanders now prepared for final effort. Wellington advanced his whole line and the imperial guards were drawn up in squares to meet them. Seldom did a field contain braver troops than now peered over musket barrels, and the shock was furious—it was Greek meeting Greek in the fiercest manner. What the result would have been with no other assistance will remain always a problem. The Prussians had now taken position and attacking the French where most defenceless, all fled in a panic. Strange that the man called by some the world's greatest hero should first set spurs to his garran. Wellington followed a short distance, then returned to meet the intrepid 73-year-old Blucher, where had been the French center. No need of saying the meeting was cordial. This was about dusk—the battle having lasted seven hours.

As to relative strength, authorities differ; the French of all arms are given at 72,000, with 245 cannon. The allies, variously from 68,000 to 70,000 and 156 cannon; the number of British troops are placed at 25,000, Dutch, Belgians and Germans making up the balance. The French loss is put at 18,500, besides 7,800 prisoners and 227 cannon; allies 23,200, including 1120 officers.

On what was the British center stands 'the lion mound,' a pyramid of earth 140 feet high and 400 feet square at the bottom, its four grassy sides steep as an ordinary roof. On top is a granite pedestal, surmounted by a bronze lion, 24 tons in weight. The figure stands in a defiant attitude towards France, the highest point being near 200 feet above ground level. On a fine day the view from here is enchanting—no wild scenery, nothing but well-tilled, undulating country, stretching several miles in each direction. No scene could be more peaceful—not even a hostile canine stirred a vicious tongue and the barnyard sentinel gave friendly greeting. Thin columns of smoke rose from distant hamlets, and church spires here and there pierced the violet ether. Near the mound a modest inn supplies refreshments, and also shows an interesting collection of battle relics. Several monuments are scattered over the field, showing where some distinguished officers perished. In the church at Waterloo village, the names of British officers are engraved on marble tablets, besides a marble bust of the commander-in-chief. At Mount St. Jean was buried the Marquis of Anglesey's leg, considered worthy of a tomb and flattering inscription. It is stated that in 1821, even George IV. made a pilgrimage to this noted shrine.

Guides persistently offer help to the tourist—they describe situations and evolutions with as much cheek as if they had seen all in action. Their English may be bad, but they give good measure—they are not particular to facts so long as they can secure the money. Probably did the tourist engage half a score and make them repeat their story apart, there would be few points of contact. But this shows a family connection. Most of us put the largest berry on top and strain the truth when so doing leads to money advantage.

* * *

Now I am off for Liege and this is what I saw by the way-side. People mowing grass and binding in sheaves, probably for seed. Barley cut and in stook—soil yellow or drab. Next section all under grain, mostly rye, then continuous areas of

grass or pasture—some parts overflowed by irrigation. The town of Louvain is here, formerly a noted old place, whose university was famous. Its town hall is about 450 years old and considered to surpass even that of Brussels. The place has old churches and pictures, besides manufactures of beer, flour and rye meal. At the station I counted a dozen cars loaded with oak bark for tanning. The country is now all under grain, rye taking the lead. Beautiful avenues frequent—also copper and weeping beech. Stacks thatched with great care—some hedges, also wire-fences. Trees and bushes seem to grow here with unusual vigor. The country from Brussels resembles a good deal parts of this province. Tirlemont has 13,000 people, once strongly fortified and of note in middle ages. It has three ancient churches, one of them ten centuries old, with brass lectern, and a tower tall and striking. From here to Liege the country is undulating and well-tilled. Rye and wheat are the principal grain crops, generally so much broken that a sickle has to be used for cutting. Mangles are grown on large areas. Small firewood bound in fagots like sheaves, made into stacks and thatched like grain. Orchards are frequent—so are beautiful avenues. Numbers of women hoeing potatoes—six in one field, nine in another. Much of the soil in Belgium is the same color as in this province, but more sandy.

Liege is 55 miles from Brussels and has 140,000 people. Viewed from a height, the picturesque vale spreads out below and appears a forest of chimneys. The town is a straggling place on both sides of the Maas, crossed here by many bridges. Several of its churches are old and interesting. The cathedral has fine stained glass windows besides statues and pictures. Near the door a sitting image of Christ rests on a pedestal and worshippers fervently kissed its foot as they passed on entering. An image of the Virgin is fairly dazzling with splendor. The high altar is very fine; and the pulpit of carved wood has marble statues. The treasury contains immense wealth in gold and silver; a gilt bust of St. Lambert alone is said to have cost \$100,000. There is a reliquary of solid gold besides other things of rare value. The columns each side of the nave are covered by some red fabric, with a wreath of gold leaves wound spirally about them. I was in several other churches, but failed to take note of their contents.

Liege is a live nest of manufactures—leather, cloth jewelry, cutlery and cannon. Its make of firearms is said to almost rival those of Britain. Locomotives are also built, and I saw

some large ones lately finished. Mines of iron and coal are near the city. Verviers is not far off, where they demand an inside view of a person's satchel. The scenery for next 15 miles is extremely picturesque; on each side are wooded hills, while cross valleys open every few seconds. Some of the slopes are carefully tilled, showing a patchwork of various colors. The valley bottom is farmed in tiny bits, a beautiful road winds through in the crookedest fashion, a stream alongside (equally crooked) turns at intervals a mossy old wheel in the laziest manner. Wild flowers are growing in damp places, old hamlets are frequent, each with its church equally ancient. Then a clear lakelet in which hillsides are shown in the most perfect manner—indeed it seems formed for that very purpose. But the rose has its thorn, the sunshine its shadow; whenever the tourist is in ecstasies over some choice view the train dives into a tunnel. Teeth are ground and hard words are smothered, but all is serene when the train shoots out into sunshine, with a yet finer outlook. Few roads I would sooner travel than the crooked, auger-hole in question. It has a dozen tunnels in as many miles and was extremely expensive to open.

GERMANY.

We are now in Vervierland, easily known by the uniform of railway people. The country looks like part of England, tho not so tidy in culture. June 26th and haymaking about finished. Aix (German, Aachen) is only a short way from the Belgic frontier. Its French name (Aix la Chapelle) means water or spring of the chapel, and was given on account of sulphur springs for which the place is always noted. The situation is peculiar. Fancy a round valley like a saucer, eight miles from rim to rim; in the center rises abruptly an oval hill some four miles round at bottom and perhaps 250 feet in height. The valley is open to south-east and here the town is placed. Except on this side the hill from base to crown is thickly wooded—beech, spruce, pine and other forest. A road ascends spirally from bottom, beside paths in all directions. Along the slope to east are beer gardens and gay trinkhalls, with scores of flags sporting in the breeze and German bands loudly crashing. It is a gay festive place in afternoons, when city swells attend and performances are given. A handsome church stands on a spur, lower down to east. The view from various points on top is quite attractive. To west a vegetable patchwork spreads before the vision—well-tilled area of fields not separated by

hedge or fences. To north the outlook is more varied—rows and avenues of trees, patches of green forest, fields of grain and roots enclosed by hedges, fine residences embowered in trees, roads, churches, factories with tall chimneys.

The cathedral is considered the oldest fane in Germany, part of it being a chapel from which the town gets its name. It was erected by Charlemagne about the year 800 and was consecrated with lordly pomp by Leo III. Under a brazen chandelier is a marble slab inscribed 'Carolo Magno,' denoting the conqueror's tomb. Some three centuries after his death the grave was opened, when the remains were found in good condition; the body was seated on a marble chair, dressed in state robes, scepter in hand, with copy of the gospels before him. The tomb was built up, but was again opened. In 1215 the remains were transferred to a costly chest, yet preserved in the sacristy. The marble chair was used for coronation of German emperors till 1558, and can now be seen for a trifle. The cathedral has fine stained glass and a wonderful pulpit, magnificent with ivory carvings, jewels and gold. This remarkable work was a gift from Henry II. of France. The church contains many images and crucifixes—an image of the Virgin looks as if solid gold. In the sacristy are the greater and lesser relics; the former being the dress worn by Mary at the nativity, swaddling clothes of the infant Saviour, cloth on which the head of John Baptist was laid, scarf worn by our Lord at crucifixion. These are shown once in seven years—the next occasion being 1895. The silver shrine enclosing them is a marvellous work of art, a thousand years in existence. The lesser relics are—the leather girdle of Christ, sponge used at the crucifixion, portions of the cross, girdle of the Virgin, lock of her hair, bits of Aaron's rod. These can be seen any time on paying a dollar. The skull, arm-bone, and hunting-horn of Charlemagne can also be seen. Besides these, the sacristy contains a vast collection of things in costly stones and precious metals. There was appearance of great devotion among the worshippers and dense clouds of incense at times obscured proceedings. The Germans are extremely religious, judging by the frequency one sees images of the Virgin, and of saints on corners of houses, at street crossings, on hilltops, along roads, in vineyards and almost everywhere.

The rath-haus (city hall) is interesting from the meetings of international congress that were held there. The original structure dates from 1360, but has been restored later. The main hall is quite handsome, with painted ceiling and groined arches.

A fine picture represents the coronation of Charlemagne in St. Peters at Rome; another portrays his marriage in the same temple. There are besides, pictures of Maria Theresa, Napoleon and Josephine, besides a fine painting on glass of the late emperor William. Aix acquired celebrity from being (in 742) the birth-place of Charlemagne; and here in 814 he was gathered home to his people. In his day and generation he gave laws to nearly the whole of Europe; and during the next seven centuries 48 of his successors were crowned in the hall just mentioned. In Roman times the place derived fame from sulphur springs, which to this day attract many. The buildings over them are quite handsome and have large waiting-rooms free to all. From 7 to 8 a. m. a band plays in a shady garden in rear, where visitors can recline on easy seats, enjoy the music and drink the nauseous stuff—handed round by German lassies. These establishments are supplied with baths for the cure of ailments, and one often sees men carrying on a litter a bunch of something under covers. This is an invalid going out for morning cooking. Swarms of these stout carriers are connected with every water-cure factory.

The Germans are spoken of as a nation of soldiers and it is not strange to find military rule in their social economy. This is particularly noticed about railways where the amount of precision is by no means pleasant. Things appear adjusted by some master genius to be as much as possible inconvenient. His ticket secured after some trouble, the passenger enters the place of waiting, the door is locked with a bang and windows are frosted to prevent any pleasure from looking. Here one may as well fancy himself a package of wares to be moved according to label and ticket. On approach of a train, doors are opened, but on the platform one must keep a certain spot according to the class of his *billet*. To a person from our free and easy land, these bugle and gun regulations are apt to feel irksome.

The country between here and Cologne is commonplace—distance 65 miles. The soil is rather light and crops inferior. A town or two and a good many villages are passed. No fences along roads, no division of fields, considerable areas of forest. Cologne (German, Köln) stands on left of the Rhine, here over a quarter mile in width. The site is perfectly level and till within a dozen years the city was fortified with ramparts and dyke, seven miles in circuit. The river is crossed by a bridge of boats and a railway bridge high enough to allow

vessels to pass under. Through the former a passage is effected by moving two boats out of position, the bridge being impassable the few minutes required for the operation. Great rafts frequently pass down river, some about a quarter mile long, with houses and families; while extended clothes-line with fluttering outfit imparts a festive appearance to the scene.

Its cathedral is the pride and glory of the city, which as a piece of Gothic architecture is claimed to hold first place in Europe. Local history says it was founded over 600 years ago; but work on it was intermittent and after some two centuries of tardy progress, was entirely stopped. For the next 300 years time, with its small keen tooth was the only workman. During the French revolution the unfinished house was used for storage of fodder and purposes equally menial. About 76 years ago work on the pile was resumed to good purpose, and continued till completion in 1880. It was then opened with vast eclat in presence of the late emperor William. I have small idea of the entire cost, but the restorations this century may be placed at about $3\frac{1}{2}$ million dollars. The dimensions given are, length 510 feet; width, 150 (across the transept 250); height of ceiling in nave to point of arches, 160 feet; width of nave 60 feet, with four aisles, each 30 feet wide and 60 in height. The roof is supported by 60 great clustered columns, the size of which most readers would be disposed to question. Then fancy a ceiling the highest point of which is reached by only the tallest of our church-spires! The south facade is a marvel of sculpture, open-work and figures, 230 feet high and said to have cost over a half million Canadian money. The central spire is over 350 feet, the two end towers 500 feet, surpassing everything in the form of steeple. On the outside are said to be about 5000 spires, pinnacles and statues. The stained glass windows are extremely gorgeous, some of them being the gift of kings. The choir is of carved wood, 15th century work. Life-size figures of Christ, the Virgin, the apostles and many others are in various parts. In the north transept I noticed a group of about a dozen men and women, standing round an image of Christ after being taken down—all full-size, apparently of wax and very life-like. When fully completed, the interior will contain 726 life-size figures of saints. The sacristy contains much wealth in articles of gold, silver and precious stones. The skulls of 'the three wise men' are among the lot, but only the backs shown, which are studded with jewels. There are great croziers, crucifixes and crosses of silver and big chalices of gold. One massive

church service was presented by Napoleon I., who no doubt stole it from another communion. Besides the cathedral the town has other churches deserving of notice. The church of St. Ursula is dedicated to that saint together with 11,000 virgins who accompanied her to Rome as pilgrims. The interior is decorated with their bones and the sacristy has mottoes and devices of like materials. A jar said to have been used at the Cana marriage is also among the treasures.

The town hall dates from the 13th century, but its beautiful portal was a later addition. One of its rooms is completely lined with leather. In the picture gallery works are arranged in schools, dating back 450 years. Old-time artists confined themselves to portrayal of angels, saints and madonnas, all creations of fancy. The gallery contains some lovely pictures of recent date, and also paintings on glass which appeared to my untutored eye perfect. But unless one has some knowledge of 'art' it is not safe to offer opinion; yet when I see a glorious landscape that strikes me as perfect, I confess a preference over some repulsive old thing that took half a millenium of years to season its colors.

The city has zoological and botanic gardens outside the old ramparts, and there are fine promenades along the environs. A colossal equestrian statue of Frederic William is on one of the markets, the pedestal surrounded by subsidiary groups of warriors and statesmen. There is also a noble equestrian statue at each end of the railway bridge noticed already. At 5 a. m. church bells call people to matins, and at that young hour I saw a religious procession, led by a bare-headed ecclesiastic, making straight for the *Dom*. The bells have a fine soft voice, and at 6 p. m. when all are ringing together the effect is grand beyond description. The air seems a mass of sound in which one exists as does a fish in water. The largest bell in the cathedral weighs 25 tons, from which the reader may infer the grave majesty of its utterance.

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The Rhine begins its career in Switzerland some 2000 feet above sea-level; its whole length is about 800 miles, navigable four-fifth of that distance. Tho only fourth among European rivers, it stands first in respect to commerce; over 100 steamers glide on its stream, carrying yearly a million persons. The section between Bonn and Mayence is about 100 miles long, the general direction north-west. Its breadth varies from a quarter-mile at Basel to a half-mile where it enters Holland.

The greatest depth is given at 76 feet. It receives several tributaries, the Necker and Moselle, navigable for small steamers 150 miles from their mouths. Rhine water is of dull milky hue and its current about a mile in 12 minutes. One can scarcely conceive anything more enjoyable than steaming along this classic stream; the temperature is generally perfect, with an ever-changing picture gallery on shore. Swift, gay steamers are frequently met filled with pleasure-hunters in holiday trim. Now and then we pass a boat with stern, hard-working features, grim with smoke and tallow, laboriously tugging four surly-looking, blunt-faced barges against the stream. Castles of untold age are perched on break-neck positions, at times only a fragment to anchor a legend. At places of more importance, steamers halt, discharge tourists and replace them by others. In some parts hotels stand near the river, dark wooded mountains at back, a green lawn in front, peopled by house-maids and boarders, shaking napkins at steamers when they pass near the shore. A railway track is on each side and trains are continually rushing by and disappearing in tunnels.

From Cologne a dozen miles up stream brings to Bonn, a small place of 33,000, but not void of fame, as Christianity was established in the first century while in the fourth a church was reared where now stands the cathedral. Of late Bonn is noted for a university which ranks high among educational centers. The place has a good museum, natural history collection and a long double avenue of great horse chestnuts, with fountains and statues. Bethoven the distinguished composer, was born here in 1770, and a fine statue of him graces the Minster Platz. At Bonn the picturesque part of the Rhine commences and the seven mountains soon appear on the left. Drachenfels, tho not the highest, is the most noted and tourists ascend from Königswinter, a lovely small place at its feet. In clear weather the view is enchanting—on one side dark wooded hills pitched about like billows of ocean; on the other a deep sunken furrow in which meanders the Rhine. Opposite is Rolandseck, a lovely hamlet nestling among forest. A single arch is all that remains of its castle, which however is stable enough to anchor this legend: About a century before the reign of good and great king Alfred, there graced the court of Charlemagne a knight named Roland. Being a reckless citizen and having no blood-shed on hand just then, he started along the Rhine for adventure. On the first evening out he became entangled in darkness and claimed a night's rest at Drachenberg. Knight

Heribut was a generous soul and entertained him vastly. They sat late over their dishes and imbibed largely the juice of the vine. Knight Heribut had a daughter of surpassing beauty—a choice prairie flower with many attractions. Roland was next day introduced, and like a brave knight fell prostrate before this vision of beauty and slayer of hearts. By slow degrees he recovered his coolness, made overtures and became the acknowledged beau of Hildegund. Elysian days were spent in picnics and moon-light excursions by night. But this was too good to last, as word came that the Moors were raising a dust in Spain; so Roland fixed on his spurs and departed—not without pledges of undying love to Hildegund. In due time he arrived at the front and engaged in battle, when a one-eyed Arab attacked him with a spear so lively that Roland was left for dead. News at that time had difficulties to master and made slower advance than now; yet had news is persistent and word reached Drachenburg that Roland was under the turf. Hildegund like a true German lass, refused all comfort and decided to withdraw from worldly affairs. In a lovely green isle just below in the river was a convent where Hildegund was admitted and there took the veil. But Roland was only foxing, and after a while got up, brushed his pants, mounted his horse and steered for the Rhine. How he felt on hearing the fate of his sweetheart must be left to conjecture. Day after day he sat in the arch and gazed down at the river. He discovered Hildegund among the sisters and feasted his eyes on her once lovely form. One day his anxious gaze found her not, and some time after, a funeral passed. Instinct informed him that Hildegund was cold in the coffin and 'he never smiled again.' Still he continued his daily vigils, and one cold dark eve in autumn, when day was merging into darkness and the wind roaring dismally through the arch, his esquire found him as usual sitting with eyes intent on the tomb of his treasure. He reminded his master that night was at hand and a wild storm approaching. No answer came—the spirit of Roland had fled.

Hills both sides of the Rhine are closely terraced and planted with vine. Several villages of varied attractions are passed, and I bring up at Remagen, a small town on the river bank, near which are the famed Apollinaries springs. During my stay here some kind of religious festival came off, the main features of which I will narrate. The route of procession was made into an avenue of beautiful green by young beeches and maple temporarily planted a few feet apart. Green leaves were strewn

along the street and over that flowers. Every house had gay flags hung wherever they would draw most attention; so that Remagen looked like a fairy young city. About ten, a terrible racket of bells and firing of cannon intimated the procession had started. First appeared a company of boys with banners, one bearing aloft a crucifix in advance of the rest. Next a company of smaller boys, with light-blue sashes, each with a bell, he incessantly rung. Then a company of small, fairhaired girls in white, with sashes and tiaras of blue, each carrying a banneret with picture of Christ, the Virgin or agnus Dei. Next a company of young women in white, with veils covering the person from head to foot. Then followed a rich canopy supported by four persons, and under it walked an ecclesiastic in gorgeous vestments. Lighted candles were borne on each side, censers were swung and clouds of incense ascended; then a brass band, more banners, followed by the congregation. A choir sang and the band played at intervals; others were repeating (and some responding to) a sort of litany. The procession doubled round an artificial grove and after a pause, retraced its steps. Church bells rang violently at intervals during the march, and the barking of a gun gave martial tone to proceedings. The whole business ended by twelve, the afternoon being spent in whatever enjoyment most suited each person. Canvas booths were numerous on the square, in which were sold wine, beer, candy, fire-crackers and such goods as were most in demand. A horse-swing and shooting gallery were important features, and fire-crackers afforded their full quota of noise. The long afternoon passed in uproarious frolic—a tea-meeting, circus and picnic in one. When day grew faint other lights were produced and festivities went on unhindered. At 4 a. m. I woke but little refreshed; for along with outside noises a band played indoors most of the night. The horse-swing had ceased its doleful rythm, but the shooting went on. Small boys were industriously gleaning stray fire-crackers that escaped unhurt. Half-drunken young fellows were staggering about in groups, bawling, shouting and pulling to pieces the deserted booths. It was a dull, calm, Sunday morning; church bells were already calling to matins, and in the dim light I could discern a few worshippers flitting past and others rounding the steep ascent to St. Apollinaries.

This is considered a gem of Gothic architecture, and its four tall spire and numerous pinnacles are a wonder of elaborate work. The inside is no less ornate and the church stands on

face of hill a half mile from the town. Besides the 14 stations, the grounds are peopled with statues and figures of saints. Three or four chapels built of volcanic stone in small pieces, with figures and mottoes in mosaic. One of them is really marvellous as work of art, showing patience and skill on part of the monks. In these chapels are altars and life-size figures of Christ and the Virgin; and in one of several grottos Christ is represented lying in the tomb. On a high spur above stands a heroic statue of some saint. From this hill one obtains a good view of the Rhine valley, its bottom cultivated in narrow strips of different grain, like webs of cloth spread out to dry. I counted seven towns and hamlets from this point of vantage. The Ahr valley near Remagan is very picturesque and much frequented by tourists. Here villages are seen looking old as the flood, with protective ramparts yet standing.

Much lovely scenery is passed before reaching Andernach. Hills are densely wooded or terraced and clothed with vine. The shore in places presents a continuous line of hotels, or villages nestling among trees and leaning against mountains; ruined castles on face of hills, or recklessly perched on top. Picturesque old churches with the wrinkles of untold centuries engraved on their features. Andernach is a small town of big antiquity, said to occupy the site of a Roman camp; and we are told that here Julius Cæsar built a wooden bridge across the river. Large sections of the old ramparts yet remain, about 30 feet high and a dozen thick in places. A tall watch tower stands at the town limit, and high up its side is a huge gap made in 1688 by French cannon. The church presents a striking appearance with four towers and spires, while inside are some good carvings of frescoes. The pulpit of carved wood is a work of some interest. The church was profusely set off with gay flags and green bushes at time of my visit. A gallery runs along three sides for the male worshippers, the females sitting below—a common arrangement in that section of country. A high wooded hill at edge of the town is furnished with hotels, beer-gardens and trinkhalls, besides an observation tower, commanding a grand view of the Rhine valley. Millstones quarried near Andernach are widely noted, as also a cement made from volcanic tufa.

Nearly opposite is the modern town of Neuweid with about 12,000 people. It is a clean handsome place with appearance of prosperity—beautiful surroundings, lovely parks, delightful avenues of limes and poplar. The town was fairly ablaze with

flags on account of some church festivity; and the appearance of many thousand gay streamers waving and dashing aloft on a breezy day is to say the least striking. Every family must keep about a score of flags in camphor to sport aloft on festive occasions. The Moravian brethren have a settlement at Neuweid, helping much to draw visitors to the place. From here to Coblenz (over a dozen miles) the valley is several miles broad; and judging by the frequency of hamlet and village the population must be dense. For some miles along the left bank, large areas were piled high with cream-colored brick. Several islands are here passed, one of them two miles in length. A village along here is inhabited almost entirely by raftsmen, who out of small rafts from the upper Rhine and Moselle form those huge platforms one meets floating down stream.

Coblenz stands on the left bank at confluence of the Moselle and Rhine, and was on that account named by the Romans Confluens, from which the present name was sculptured. The town is capital of Rhenish Prussia, and has about 50,000 people. The site rises gradually from the river and ends in a wooded hill in the face of which is a strong fort. On top is a wide plateau used for military evolutions, and on which were encamped in 1870-71 about 14,000 French troops taken in the Franco-Prussian war. Another fort commands the Moselle valley, and from a strategic point the town is safe from an enemy's cannon. About 2500 troops are usually kept here on garrison duty. Advancing along the plateau aforesaid I noticed the park over the citadel shut in by a high wall, a fosse outside and a fine gateway spanning the entrance. Bridge down, gate open, no sentinel on duty and I advanced. The enclosure was a real gem of a place with shade trees and seats inside the wall along the crest. The view from here was magnificent; so I sat and began to jot down my impressions. Thus occupied I failed to notice two soldiers till within a few paces; they began to talk German excitedly and motioned that I must leave. I pointed along the river, then to what I had written to make them understand I was only a pleasure-hunter. I then walked away, one of them accompanied me past the gate. I scolded vigorously all the time in English, telling the fellow that if strangers were forbidden a sentinel should be on duty. But being in their own land I showed no active resentment.

Fort Ehrenbreitstein is on a rocky eminence 400 feet above the river, opposite Coblenz and next to Gibraltar, considered the

strongest in Europe. The approach landwards (its weakest point) is defended by three lines of redoubts, mounting 400 brass cannon. Shortly after the rebuff mentioned I was rambling among these, when two men who were trimming the glacis, informed me by signs that strangers were not admitted. The site of this renowned fort was formerly a Roman camp, and was blockaded several times in the expiring years of last century. In 1797 it was held by General Hoche till the peace of Leoben; next year the French again reduced it by famine, and on being given up in 1801, they blew up the defences. Since 1814 enormous sums were spent by Prussia on reconstruction, and it is now secure against invasion. The fortress has a well 580 feet in depth, and under the summit platform (used as parade ground) are cisterns containing water enough to supply the garrison for three years if needed. The garrison strength is usually about 2250. From the hill above the citadel a fine view is obtained—rural landscape, areas of forest, vine-clad hills, towns, villages and homesteads. At foot of citadel hill a small town stands by the river, and back of it a cemetery lies in a valley. Here are two large stone crucifix, the image on one of them covered with gold-leaf and glittering most superbly in the sunshine. Nearly all the headstones have figures of Christ from six inches long, most of them gilt and looking like solid gold.

Coblentz has numerous churches, some of great age and much interest. St. Castor's is near the bridge crossing the Moselle, and in front stands a fountain erected to commemorate the campaign in 1812 for the conquest of Russia. It was set up before the expedition started, an inscription recording the Muscovite conquest. Before spring the rags of Napoleon's army were chased from the north, and a Russian general, on taking Coblentz and seeing the boastful inscription, added beneath—'Seen and approved by the Russian commandant, Jan. 1st, 1814.' The affair shows alike French pride, and the folly of shouting before leaving the wood.

The Rhine is crossed in front of the town by a bridge of boats and by a railway bridge farther up river; the Moselle is crossed near its mouth by a fine bridge of 14 arches, about 500 years old. The Rhine promenade is a lovely park along the river to south of the town. It is indeed difficult to conceive any spot with a greater variety of attractions. As at Neuweid, the town was in a fairy flutter with thousands of gay-colored flags, perhaps in honor of the musical tornado yet to mention. Some of the beer-gardens are really fine in their appointments—

shade trees, showy flags and excellent bands of music. In cruising about the city, I noticed streets not over two yards wide, yet clean and free from ill odor.

A singing contest on a vast scale came off during my visit, and of 164 societies that of Cologne won first honors. Compared with this musical effort, anything I had previously heard deserved but small notice. The contest lasted nearly a week, during which the town was fairly gorged with people. At night the place was a pandemonium with singing, bawling, shouting and noises usually made by half-drunken persons. In midst of such revelry it would require a practiced hand to sleep with any show of success. The Moselle is navigable for small craft as far as Treves, 150 miles by following the river. On July 2nd I started by train, distance 72 miles. No single houses, but quaint old hamlets crowding each other. Roads excellent; chapels and images on every hand—along the highway, in fields and among vineyards. Hills terraced and vineclad—women fastening the vine to sticks. When about half way, passed through an extensive valley, the soil and stones much the color of red paint. Seemingly too damp for grain, the district was entirely under grass, while scores of men and women were using sythe and rake. As the ground is perhaps not disturbed for centuries, the grass was fine, short and extremely thick. Only a few of the ladies were mowing, but these appeared competent as their male companions. In hauling, I noticed that cows were invariably used for draft; the truck-wagons were extremely primitive, cumbrous and heavy. This valley passed, the country became uneven and apparently well tilled. Large sections of forest were common.

It is related that Cæsar encountered in Belgic Gaul a people calling themselves Treveri, Treves being their capital. The town was important at commencement of the Christian era and centuries later. It was often an imperial residence, and under Constantine it is said to have rivalled Rome itself. A writer of the fourth century says that sawmills were constantly at work sawing marble to supply materials for Mosaic floors, and he refers to the adornments of private houses. But early in the 5th century the place was overrun by the Goths and never after raised its head. In Napoleon's time it was made capital of a French province. Treves is built in the Moselle valley, here over a mile in width, a ridge of hills extending to north and south. That to north ends in a perpendicular rampart of sandstone rock; and on the edge, at highest point, a colossal image of the Virgin stands on a high pedestal, the whole thing rising

perhaps 200 feet. A great tiara of gilt balls encircles the head, and the figure is visible from a long distance. The sandstone is rather soft and I saw a couple of houses excavated in face of the rocky wall mentioned. The summit is quite picturesque and in places occupied by hotels restaurants and beer-gardens where the town gentry spend afternoons.

Treves is mostly interesting from its ruins of a past age, an erection named Porta Nigra being the most striking. Whether of Belgic, Frankish or Roman origin seems uncertain, but there is no doubt as to its great age, for the stout iron clamps binding the parts have long since changed to rust and the red sandstone has become the color of peat. The structure is 115 feet long, 29 feet wide, 93 feet high and divided into three storeys. From 1035 it was used for worship till near the close of last century, when the destroyer, Napoleon, caused its leaden roof to be melted for shot. Since then it has been roofless. It is a rare curiosity and the mystery surrounding its age detracts not from its value. A Roman amphitheater, excavated in a hill face near the town, is 210x160 feet in the arena and calculated to hold many thousand people. The seats are now overgrown with trees and bushes, but from what remains the excellence of Roman work may be seen. History relates that in 306, the arena contained so many Christian prisoners, the wild beasts desisted from further bloodshed. The basilica, built by Constantine as hall of justice, was in 1856 fixed up for a Protestant church in which German worship is now held. It may be stated that of the 24,000 inhabitants of Treves about 3000 are of that communion.

Of the Roman baths (over an acre in extent) nothing is left but the foundations, yet the various apartments can readily be made out. Arched vaults are numerous, as also earthen pipes then in use. In the bath rooms the floors and side are apparently good as ever, showing the excellence of cement used a couple of millenia in the past. An underground passage leads to the river, about a mile off. Part of the city wall is yet upright, while mosaic pavements and bits of sculpture are often dug up. The river is crossed by two bridges, one of which contains fragments of a Roman bridge built 28 B. C., and used till blown up by the French two centuries ago. All houses in Treves are roofed with slate, giving them a tidy appearance.

Of its numerous churches, the cathedral is most noted and its chief treasure is the holy coat. This relic is said to have been found in the holy sepulcher in 326 and various fanciful legends are abroad as to how the garment reached its present site. Ordin-

arily it lies under the high altar, mass being said daily over it. Previous to 1891, it was last shown in 1844, when a million pilgrims (it is said) visited the shrine. Readers were last year so well informed about the relic that nothing further need be said. As to its being the real tunic worn by the Saviour, it may not be our place to offer opinion; but apart from there being other coats laying claim to equal sanctity, there are so many peurile legends connected as to stagger one's faith unless it be without limit. Again, it seems evident that no kind of fabric could hold together 2000 years without miracle; and a miracle would keep the garment good as new, whereas it was dropping to pieces and had to be pasted in tiny bits on other cloth. Judging from the colossal Virgin image mentioned and the frequency of images above doors and on corners of houses, the Treveri are devout beyond measure. A large stone crucifix stands on one of the bridges, and people in passing bowed low and crossed themselves.

I noticed a singular custom here among women of the working class—that of wearing creels on their backs. I say *wearing* advisedly, for in most instances the receptacle was empty and seemed to be carried as set-off to the person. Even little girls scarcely of school age wore creels proportioned to their stature. They are made of willow twigs and hold three to four pecks; the flat side against the person runs up in a kind of shield above the head. Creels are not rare in other countries, but not more than a tenth as fashionable as at Treves.

The Moselle is extremely crooked, making 150 miles in a crow-line of about 60. In one place a walk of three miles saves 18 miles of river—almost equal to the Forth links between Edinburg and Stirling. The scenery along it is charming and about 60 villages are passed en route, the largest with 2500 persons, the smallest a mere hamlet. Castles and towers, in various states of decay, are dangerously perched on heights above the river. Two of these formerly belonged to the Metternich family, one of the noblest in the country. One old village is pointed out that contains a ruined palace which belonged to emperor Constantine some 1500 years ago. Another village obtains notoriety from having (60 years ago) been inundated by water and ice to a depth of 30 feet. Diebelich was reckoned a noted meeting-place of witches four centuries ago, and it is stated 25 of these broom-flyers were here cremated at one slap. At one village about a dozen tall chimneys, shooting black smoke into the azure, announce the existence of

iron-works. The country roads are excellent, generally running along each side the river, and often shaded by avenues of poplar and limes. Hills where suitably exposed are terraced and clothed with vine; I counted 26 terraces in places. Orchards are plenty, and sometimes fruit trees and grain are in friendly union on the same spot; while hamlets are often seen nestling lovingly among fruit trees. As on the Rhine lateral valleys are frequent, giving splendid peeps into the country each side. At one place 54 cars rushed out of a hillside as we passed—the train no doubt over half mile long. Nearing Coblenz a turn of the river forms a grand amphitheater seldom surpassed. A village of hotels stands close to the water, while castle ruins crown the heights. Right across the stream is an old-fashioned village smothered in fruit trees—the spire of its ancient temple rising above. Many tourists abide in this spot and a larger boat is used between it and Coblenz. Chapels with image of the Virgin are thick along the Moselle—by the roadside, on river banks, on hill tops, in vineyards and grainfields. Women are everywhere at field-work—mowing, reaping, chopping wood, carrying great loads of grain or hay, rowing boats, driving ox-teams and washing clothes in the river. They are seldom without a creel, unless laden with something else. They make no attempt at shading their faces, and so are tanned brown as our micmacs. The worst kind of labor seems to have fallen to them in life's inequal division. Coblenz is reached about sunset, the run down from Treves taking 12 hours.

When leaving Coblenz next morning the porter reminded me the day was July 4th. He was a stout burly Prussian who had been through the U. S. rebellion and seemed to entertain good feelings towards the American people. In case some reader may suppose the hotel porter is one who carries trunks and valises, let me say that the functionary in question largely runs the business, and wears gold-lace on cap and vesture; he may stand before kings—he standeth not before mean men. For a mile or two after leaving Coblenz, hotels in single file extend between the river and hills. Many of them are beautifully surrounded with trees, having lawns in front down to the water. Not far off the Lahn enters from east and a few miles up, stands one of the most picturesque watering-places in the country—Ems, in July and August a busy hive of pleasure seekers. We now pass the restored castle of Stolzenfels, very handsome with white towers and turrets rising above the green forest. It belongs to the royal family of Prussia. A little

farther, the Rhine makes a violent turn westward, almost bending double, and after a few miles it turns yet more sharply back. On passing the turn, Boppard is on the left—a good spot to enjoy pleasant scenery. Next we are at St. Goar, with castle Rheinfels (considered the most extensive ruin along the river) rising grandly at back of the village. [At St. Goar the voyager who looks sharply will notice a pine tree growing on the topmost turret.] In 1692 the place was attacked by 24,000 French who were bravely resisted by general Gortz. The French general (Tallard) had promised the castle to Louis XIV. as new year present; but the brave Hessian had a word to say and he spoke it with cannon. On a point farther along are the Lurley rocks, 450 feet high and opposite, a dangerous whirlpool. Formerly a fine echo was returned, which legend-makers transformed into a syren who gave forth a song to lure mariners to destruction. Few legends are so well-founded, for boatmen in passing generally stopped to rouse the echo, when at once the whirlpool had them. Oberwesel a few miles farther is one of the most attractive spots on the river. We now pass a curious erection on a rock in mid-stream, the lower part resembling a fort. Centuries ago it was a toll-house; at present it is a curiosity and nothing else. Castle Sonneck, like Stolzenfels, belongs to the royal house of Prussia. It is very handsome with flags, towers and turrets. Soon a slight and rather showy tower is passed in mid-stream, known in former times as the *mauthsturm* (custom house), afterwards corrupted into *mausesturm* (mouse tower). A legend connected with it, the poet Southey put into verse, familiar to most readers. From Coblenz this far is no doubt the most interesting part of the river. The stream is very crooked and frequently not over 200 yards wide; wooded hills rise abruptly from the water and old castles are numerous as one could wish. Deep lateral valleys disclose unlooked-for beauties, village and hamlets nestling among trees or basking in sunshine—others leaning back against steep hill-sides and drawing in their fore-feet to keep out of the river.

Soon after passing the 'mouse tower,' the Nahe comes in from the west, about 60 yards wide and navigable for small steamers. On the angle between the Nahe and Rhine, on rising ground facing north, stands Bingen, with narrow, ill-kept streets and slatternly look. The chief occupation of its 6000 people is wine manufacture, this being the principal wine district. Here I saw a large area piled nine feet high with vine stakes or props. They are split quite small, four to six feet long and bound in

bundles of 25 stakes. On the hill face opposite Bingen I counted 30 terraces from the river. The top is heavily wooded, forming a kind of park with walks, drives and restaurants. On upper face of the hill, between vineyards and forest, stands the national monument, Germania, erected in 1883 to commemorate the success of German arms against the French. The pedestal is about 80 feet high, 60 feet square at base, surmounted by a figure representing Fatherland, the whole thing being perhaps 120 feet in height. At the bottom are figures of victory, with wings outstretched. All the castings are of bronze and finely executed. The monument cost over a quarter million dollars and was unveiled on September 28, 1883. The deed placed in the archives contains the following patriotic words—'Stand all united to the emperor and empire. Germany, Germany above everything!' A band plays at foot of the monument on summer afternoons. Like the bronze lion on field of Waterloo, Germania faces towards France as if looking defiance at that people. One can forgive this apparent bravado, for when Germany was feeble and disunited France lost no opportunity to insult, humble and ravage that country. Spain and France had their day and remorseless tyrants they proved themselves. History records few parallels to the ruthless barbarism, destruction and pillage inflicted by Gaul in centuries past; whereas nothing in the annals of war, defeat and surrender equals the national disgrace and humiliation suffered by France in the late contest. In August 1870 a French army (under marshal MacMahon), advancing to relieve Metz, was encountered at Sedan by the Prussians, and after three days fighting, were compelled to enter the city. On September 2nd the whole division of 84,000, together with marshal and officers laid down their arms. The French emperor had already surrendered to the Prussian king in person. Not quite a month later a French army of 173,000 three marshals and 6000 officers became prisoners of war to the Germans. War materials to the value of \$15,000,000 fell into the enemy's hands, including 800 guns, 85 batteries, 66 mitrailleuse, 300,000 rifles, besides a vast quantity of other stuff. Nothing in modern warfare approaches this catastrophe—nothing in authentic history equals it in national disgrace. France always desired to have the Rhine for its east frontier, and it raised the late quarrel with a view of attaining that end. But Germany took another view of the matter; so that besides the loss of men, one act of imperial pomp, one flourish of Napoleon's pen cost France several thousand horse-loads of sovereigns.

Below the monument and near the water is Rudesheim, a clean prosperous place with 4000 people. In the morning as the clock announced seven, teachers and children passed to school. All were clean, looked healthy and were dressed alike. The teachers marched ahead, followed by the boys in military fashion; the girls came next, equally trim and well-dressed. The town has an old castle formerly owned by a knight of whom this legend is related. Sir knight set out for the holy wars with many others, and when cornered tightly in battle he vowed if his life were spared his daughter would enter a convent. On his return he related the conditions to his daughter. She listened motionless as a Minerva in plaster—she had a new beau and refused entirely to act out the scripture damsel. To enter a lone musty cloister was far from her thoughts as to enter a madhouse. The foolish old knight was determined to make good his promise—she was equally firm against it. One night after a violent discussion, she arrayed in her best and leaped from a tall tower into the river. The foolish knight was frantic; and her lover, after pining for a day—recovered. So ends the legend respecting that faithful, blue-eyed daughter of the Rhine.

A few words here in reference to grape culture. The plant needs but little soil and matures best on stony hillsides facing the south and east. Hills too steep are formed into steps, or terraces—the perpendicular wall from ten to twelve feet high, the level part broad or narrow according to slope. The walls are well built, with at intervals a flight of steps to the next terrace. I counted over 30 terraces on the hills opposite to Bingen. There are many varieties of grape, but the kind used in this section is from four to six feet high and looks a good deal like pole beans in youth. When the plant is a few inches high, a stake is driven alongside to which it is fastened with rye-straw, the process being repeated as often as needed. A certain kind looks like hops and is trained on horizontal sticks five or six feet from the ground. The company of weeds is not allowed, and when the plants are well grown a vineyard alive with youth and maidens, weeding and tying the plants is an interesting sight. Grapes I examined on July 4th were from the size of wheat to that of small cherries; they grow rapidly in July and August. The Romans introduced vine-culture into this section and it has ever since been continued.

From Bingen to Mayence the river has many islands, well grown with bushes. The ground each side is flat, in places below water level. It is well farmed, and judging by the

frequency of towns, thickly peopled. Johannisberg castle stands on a knoll in the center of vineyards—the 40 acres of domain realizing yearly about \$20,000. The castle was for some years a residence of the Metternich family. Biberich is a small place a short distance from Mayence, with a grand old palace, delightful walks and gardens. From here three miles inland is Wiesbaden, a lovely watering-place of 50,000 people. The mineral springs are at the edge of a wooded park with walks, drives, small lakes with smaller islands in them. The kursall is large and finally appointed; the chief hall 130x60 feet, with marble columns supporting the galleries. There are besides a ball-room, banquet hall, reading and gaming rooms, all furnished in grand style. In front is a magnificent flower garden and at each end a fountain shooting up water. From 7 to 8 a. m. and late in afternoons a band plays in a delightful spot behind the buildings; and while listening to the music visitors can recline on shady seats or wander among the untold beauties of the place. Few spots offer greater variety of enjoyments than Wiesbaden. The town has a good museum of Roman antiquities, natural history collection and library with treasures of ancient lore. The Protestant church is a beautiful erection of polished brick with five elegant towers. In front of the Catholic church stands a monument to soldiers from Nassau who fell at Waterloo. There are several other fine churches of red sandstone, found in the district. Owing to the number of English tourists a service in that language is conducted in summer. The new town hall is magnificent and costly for so small a place—great pillars of variegated marble, grand stairs of easy ascent, with balustrades of costly stone.

A few miles bring to Mayence, on left of the Rhine, with about 70,000 people. Here the Main enters the larger stream from east, after a winding course of 300 miles. Mayence was a Roman fortress in old time, and abounds with relics and traditions of the past. Roman legions under Constantine were encamped here and Christianity was early introduced. During the revolution it was ceded to France, but was restored to Fatherland in 1814. The Rhine is here crossed by a bridge of boats 600 yards long and also by a handsome iron structure of recent date. Charlemagne built a bridge here 11 centuries ago and numbers of the oaken piles (20 to 30 feet long and shod with iron) were lately recovered—both iron and wood apparently sound as ever. The museum is wonderfully rich in Roman remains of every kind.

Mayence is a place of great military strength. The citadel on a hill overlooking the town, could with its heavy guns sink anything that came by water. By land the place is surrounded by formidable earthworks, inside of which rise some 30 feet, masonry walls which no cannon could pierce. I am unable to tell the number of troops in garrison, but soldiers are met at every turn. A handsome building of pressed brick near the citadel, about 600x60 feet and four storeys high, I judged to be officers quarters. In another part a parade ground of some 40 acres is flanked by a barrack about 900 feet long and three storeys high. A number of new buildings were being erected, one apparently for troops looked to be 1200 feet long and three storeys in height.

The cathedral is an imposing old structure, but surrounded by men's houses. It was six times partly destroyed by fire, bombarded and sacked on other occasions, and during Napoleon's mad career used as barracks. It is surmounted by a fine dome and several towers, one 320 feet in height. It has 14 altars and 20 minor chapels; a pulpit of stone with figures of the 12 apostles; fine stained glass and elaborate carvings on choir and behind the high altar; has a great number of memorial slabs, reliefs and statues; tombs of cardinals, archbishops, electors, besides images of the Virgin, Christ and the apostles. Here is shown the tomb of Boniface (30 years bishop) and a memorial slab to Fastrada, third wife of Charlemagne. The great bell does not seem to me inferior to that at Cologne. At 4 a. m. Sabbath mornings all the church bells ring together, while guns are fired from the citadel; this is repeated at 10.30, when the racket is simply tremendous.

Mayence claims the honor of Gutenberg and the printing art; his house is shown and also where he set up the first 'office.' A bronze statue of him (by Thorwaldsen) was erected 60 years ago—the event being honored by three days' festivity. There is also a bronze statue of the poet Schiller. The city hall is remarkably fine. An old palace of the electors is turned into a museum and contains a great number of Roman altars and headstones—piles of axes, adzes, picks, chisels, gouges, augers and coin. For Greek and Roman antiquities it takes first place in Fatherland; while the public library contains rare specimens of early printing. The railway station is large and convenient. An official in gold-lace stands at the wicket and on seeing a stranger make purchase, inquires where he is going, examines his ticket, sees that correct change has been gotten, leads him into

the waiting-room and shows on the clock what minute his train will be ready. Whether the motive be kindness or caution I cannot explain. The esplanade along the river front is very handsome. The ground rises in easy terrace, planted with lines of acacia, their tops trimmed round as gunshot. A fine theater stands on the esplanade. On the whole the city is highly interesting.

Over a mile off the remains of a Roman aqueduct claims attention. The route is along a beautiful shaded road, many of the trees covered with wicker beyond danger mark. Sixty columns of the aqueduct are upright, the tallest about 30 feet. They are 13 feet square at the bottom, 20 feet apart and stand on a mound or dyke. They consist of stone and brick fragments held together by mortar—the outside casing of masonry having been long ago removed for building. The country round was well farmed but hilly, large sections being in forest. Zahlbach, the sleepest of German hamlets, lies here in a wooded valley, a stream winding lazily through it. Old gents sitting under trees, smoking their pipes or dozing to sleep—their children's children playing in the brook and catching minnows. On the way out a cemetery is passed, the headstones having gilt images of Christ as at Coblenz. A small Jewish cemetery adjoins on a hillside. The ground is well kept and most of the stones are expensive, all showing how careful this ancient people are in respect to their dead.

From Mayence to Basel is over 200 miles. The route is along the Rhine valley, mostly over six miles wide, through which the stream wanders at its own crooked pleasure. The land is alluvial and highly productive. The usual grains and roots are grown such as rye, barley, oats, corn, potatoes, beets, carrots and turnips. I noticed fine sections of wheat between Freiburg and Basel, but rye and barley take first position. The different varieties are in narrow strips, seemingly not over four yards wide; the cause of which peculiarity I was unable to fathom. In the distance mentioned I don't remember seeing a fence, hedge, dyke or obstruction of any kind along roads or between fields. Haymaking and harvest were in progress and in travelling 500 or 600 miles I failed to see one reaper or mower at work. The country each side was swarming with men and women, in proportion of perhaps two women to each man—the usual arrangement being a man cutting, a woman lifting, another binding. The sythe is about 20 inches long, almost straight, wide at heel and tapering to a point.

When in position, it forms a right-angle with the snath, which is straight as a broom-stick. 'Cradles' are rarely seen and when used, the fingers are very short. Probably owing to the grain being much broken, the sickle is largely used and mostly in the hands of women. Sheaves are not made into stooks as with us. Occasionally corn and wine (vine) are seen growing cheek to cheek; the grapes are seldom trained on level ground so far north. But few horses are seen in this country, cows being invariably used for plowing and carting of every kind. They appear more lively in harness than oxen, and are on that account likely preferred. The truck-wagons are extremely primitive and heavy; and except the wheels, the axe and auger are the only tools used in constructing. Here it seems to be a cardinal virtue to continue everything unchanged from one millenium to another. After leaving Mayence slate disappears from roofs till Basel is reached, tiles of various pattern being used instead. Beer-making is a chief industry in this section and immense quantities of hops are raised to supply the bitter. Extensive plantations of young oak and pine are frequent, the trees regular in height as corn, the ground kept perfectly clear from weeds and bushes. Country roads are excellent, often with a line of trees each side, giving attractive appearance. No individual houses are seen but village and hamlets are plenty.

From Mayence to Worms is 28 miles—a small old-fashioned place to left of the river. The population is given at 20,000 scarcely a quarter of what it was six centuries ago. Worms existed prior to Roman rule, and in it Frankish kings and German emperors often dwelt. Imperial councils were held there, the last in 1521 when Luther stood before Charles V. to declare his new religion. The building was destroyed by the French and now a fine bishop's palace occupies the site. Worms suffered much from the tramp of armed men, from fire and sword, gun and mortar. It was accorded to France in 1801, but restored to Germany a dozen years later. Its present industries are mostly tobacco, beer and patent leather; but it seems not on the road to fortune. The cathedral is a massive old fane of red sandstone, Romanesque style and grandly simple. Its area is given at 350x87 feet, has two domes and four towers. A dozen great pillars, eight feet thick, stand each side the nave supporting the roof. The altar finish rises about 50 feet and is surmounted by gilt crowns and crosses. The church contains many shields and tablets, together with carved figures of bishops and saints. The Liebfrauenkirc is quite

handsome with tall tapering spire, stained glass, carved choir and gilt ceiling. Luther's monument, erected in 1868 at cost of \$85,000, is a magnificent casting. It represents the reformer, bible in hand, looking upwards, while round him are figures of Huss, Wickliffe, Savonarola and Waldus. Some distance from town is the elm tree under which Luther rested and determined to enter Worms whatever be the outcome. The Jews have here a synagogue of the 11th century, and in their burial place I noticed the singular custom of heaping pebbles on the tombstones. On Sunday crowds were strolling about and loafing at corners; stores were open, but I saw none making purchase. During the afternoon bands were playing and guns firing. What in old time was a canal winding through the city is now a shady walk, twelve feet deep and about 60 feet wide at top, the bottom and sides thickly wooded.

From here to Spire is about nine leagues. Ludwigshafen is passed en route, which from its 30 tall chimneys must be important. Spire is one of Germany's oldest towns and was at one time no mean city. Twenty-nine imperial councils were held there, at one of which (in 1529) the reformers advanced a declaration or protest from which the word Protestant is derived. Near the reform church may be seen a fragment of the building in which the proceedings took place. During the wars of Louis XIV. the town was repeatedly sacked and in 1689 committed to flames. The population is about 13,000, less than half the number contained four centuries ago. A beer-factory on extensive scale, sugar and vinegar works are the only industries worth noting. The town will always be of interest as an old-time relic, its appearance being sufficient guarantee of its age. The cathedral draws most attention, with a record over 800 years. The style is Romanesque and its material red sandstone. Several times it was dismantled, and two centuries ago the French used it as barn, storehouse and barracks. Early this century it was restored by the Bavarian king and now few places of worship surpass it. The length is given at 600 feet, width 140 and height of ceiling 100 feet. The nave is supported by 12 massive pillars each side; ceiling very handsome in blue and gold; choir ceiling frescoed with scripture figures. Four pillars of costly marble support a canopy of extraordinary beauty above the altar. The organ is brilliant as paint, bronze and gold can make it. About 750 years ago the cathedral walls echoed to the appeals of St. Bernard, calling for warriors to chase heretics from the holy city. Many imperial ones were

interred in its area, but French occupation destroyed or defaced tombs, monuments and altars? On the ground adjoining is a curious rock-work representing Christ and disciples in the garden, dating back 450 years. The cathedral stands at the edge of a handsome, wooded park, a stream meandering playfully through it. A tall, singular-looking gateway, with barred windows, stands at end of the principal street, looking old enough to have been a place of retreat at the general deluge. Parts of the old city walls are yet standing, with houses on them. At Spires I was pleased to find as ticket-agent a New-England Yankee, with the courtesy and kindness for which that people are noted.

About seven leagues brings to Heidelberg, left of the Neckar, four leagues from where it enters the Rhine. Like most places in that section it was repeatedly sacked by the French—five times bombarded, twice burnt, three times taken by assault, given over to rapine and pillage. It was to the doors of St. Peter's church here that Jerome of Prague fixed his thesis, and from its yard he addressed the people. Heidelberg is noted for its university, with about 100 teachers and nearly 1000 students. Many stories are told of duels fought by the youth while at college—divided into corps and distinguished by color of their caps. The duels are not often serious, the combatants being well protected by wadding before entering the lists. But its castle is the lion and bear of Heidelberg, on face of a steep wooded hill back of the town and 300 feet above the Neckar. The situation is most picturesque—standing on high artificial terrace, facing north, the river before it and beyond, steep wooded hills rising 2000 feet. The ancient pile is a combination of fortress and castle, rising four storeys with massive tower at each end. The whole is built round a court, a ponderous gateway at the back over a fosse, while an upward glance reveals a giant portcullis. Both fronts display a vast amount of sculpture, with figures of electors, knights and warriors. A little distance to southwest is a round structure, 90 feet diameter, about 100 feet high and walls 20 feet thick—used as magazine. In 1689 it was fired by the French when a great piece was blown out and now stands in the ditch. What was called 'the English garden' is to south of this, formed by elector Frederic V. for his Scottish wife. A marble gateway stands at entrance, with the British arms cut in the arch. Among the curiosities shown in the castle is a wine cask built in 1751 and said to hold 49,000 gallons. It is 32 feet long, 26 feet through the center and 22 feet at ends. The oak

slaves are seven inches thick and the cask is held together by 18 wooden hoops six inches thick, and several of iron. The ends are about eight inches thick, and supported across the center by oak timbers 14 inches square. The stand or cradle on which it rests is a ponderous affair and must have cost the price of a good dwelling. A platform on top of the cask is nearly 30 feet high and reached by two flights of stairs. The cask is said to have been thrice filled, the first occasion being celebrated by the elector and his court having a dance on the platform. The last filling (according to report) was in 1764—whereas others maintain the cask had never a taste of wine put in it. A barrel without hoops is alongside and other curiosities of no great value. The castle was reared by many hands—first erected in the 13th century, each later occupant making whatever additions fitted his means and suited his fancy. It suffered repeatedly during the 30-years war, but was always restored on the advent of peace. In 1689-93 it was so battered and wrecked that Louis XIV. struck a medal to announce its destruction. At beginning of last century it was again restored, to be shattered by lightning in 1764, since which time sun and shower have been the only workers. The grounds are scarcely of less interest than the castle—extending in great artificial terraces along the hill face. The whole place is densely wooded and great trees are growing through terrace walls and dislodging the stones. An ascent of 30 minutes brings to Wolfsbrunner where trout are reared in ponds. Ascending still higher, Konigstul on the summit (with observation tower) commands a magnificent view. The outlook from heights across the river is no less charming, while excursions along the winding Neckar cannot fail to delight.

Charlemagne during his reign of 'universal empire' was accustomed to grant estates to favorites in his army and household. A certain office in the latter was palace-greeve— in German pfalz-graf or palsgrave. The great Charles, in a time of good humor, endowed a servant occupying this office with a large estate on both sides of the Rhine; and from being a term of servitude, palsgrave became a title, going down to posterity with the lands attached. In time, counts palsgrave (in French palatine) took rank with princes of the empire and were sovereigns in their own dominions. The territory (known as the Palatinate) was one of the most fertile in Europe; while raising corn and roots in abundance, it produced wines of the best sample. The people were industrious and happy, and for

generations were blessed with wise, gentle rulers. In this way the Palatinate was long a picture of rural comfort seldom met in that age of bloodshed. But one foolish act upset the whole business and changed the district to a blackened waste. About three centuries back the reigning elector (Frederic IV.) died, leaving an only son in his teens. The lad's mother (a prudent Dutch woman) managed the estate till her son came of age and assumed the title of Frederic V. The youth had received careful training and gave promise of becoming a wise ruler. As matter of policy a match was arranged between himself and Elizabeth Stuart, daughter of James I. of England, then 16 years of age. The marriage took place early in 1613 on grand scale, and in due time the young couple started for their home by the Neckar. They were royally entertained en route and their progress up the Rhine resembled a fairyland vision. The reception at Heidelberg was of princely splendor, while the old castle resounded with mirth and gladness. When things had cooled down a little, Frederic caused a garden in English style to be planted near the castle, in compliment to his young wife. Happy in every relation, with a loyal people and kingly residence, years passed like a dream of pleasure; but like other dreams it did not continue. The misfortune was no accidental occurrence—happiness and home were spurned for the sake of a shadow. In the midst of comfort and even splendor, Elizabeth pined for higher title.

Bohemia is an ancient kingdom 350 miles east of Heidelberg, lying between Bavaria and Austria. For generations it had been ruled by the archdukes of Austria and in submission to the throne of that country. In 1619 the Austrian emperor dying, it was decided that Bohemia should elect a monarch. Looking for one to fill the vacant throne, the choice unhappily fell on Frederic. The count was not of an adventurous kind and was happy in the true allegiance of his people; but his wife, more ambitious and less wise, saw only the outward glitter. She moved heaven and earth to swerve the count from his wise decision—she would rather (she said) live on bread as a queen than feast on the best fare as an electress. Her desire was granted: in an evil hour the count accepted the royal offer, and in 1619, with wife, family and suite, set out for Bohemia. In October they entered Prague, accompanied by a troop of nobility, knights and citizens. But to Frederic and his wife the mistake soon became apparent. Treachery was rife within the walls and outside powers who promised aid were sadly

wanting. Spinola and his Spanish troops advanced into the former home and Frederic's mother escaped alive with no small trouble. The Palatinate was completely lost, while Bavarian troops were in full swing for the Bohemian city. The count was a man of war, but individual prowess would effect little with an army of traitors. The city was taken on November 8, 1620; Frederic, his wife and children escaped and with much hardship reached Breslau. From here Elizabeth wrote an effecting letter to her father entreating help, but none came, and the unfortunate exiles sought refuge in Holland. The Palatinate from being a picture of peace and comfort was overrun and ravaged for eleven years by Spanish troops. Towns were stormed and sacked and its splendid castle a heap of ruins. After vicissitudes tedious to follow, Frederic died in 1629 at Mentz, aged 36, and was buried at Sedan. Elizabeth continued to live in Holland striving to maintain the shadow of a court—pride being strong as the love of existence. Of 13 children, nine lived to mature age, most of whom turned out badly. By treaty of 1648, one of the sons (Karl) was restored to the ancestral possessions, but with inhuman cruelty turned deaf ear to his mother's pleadings. Now advanced in years and deserted by her children, Elizabeth accepted the hospitality of an English lord and died in London ten months after at three score and six. Her nephew (Charles

I.) cared not to see a pauper aunt about his palace; but now that she was dead he determined to give a royal outfit. After weeks of preparation, she was on March 1, 1662 interred with splendid pomp in Westminster abbey; and the visitor to that historic fane will discover at the feet of queen Mary's splendid tomb a slab inscribed—'Elizabeth Stuart, queen of Bohemia.'

Karl (before mentioned) used his wife so badly that she left him. The only issue (a daughter) became wife of Philip duke of Orleans, brother of Louis XIV. of France. Her son became regent during the minority of Louis XV., and from him was lineally descended Louis Philip, late king of the French. Sophia (Elizabeth's youngest daughter) was in 1658 married to Ernest Augustus of Brunswick, to all appearance a slim enough match. But the unexpected generally happens, as by a succession of deaths and other causes, Ernest succeeded to the electorate; and in 1660 Sophia bore a son who at death of his father in 1700 became elector in his stead. Circumstances equally unexpected were making room for Sophia on the British throne if her breath had continued. During her life James II. was driven off, William and Mary had their turn, Anne had been a dozen years

queen and was advanced in life. Sophia, tho her son was a grandsire, had hopes she might outlive Anne, if only for a couple of hours in order to experience the thrill of being addressed—'your majesty!' But death could'nt be coaxed and she was three months in her tomb when Anne breathed her last in August 12, 1714. Sophia's son (then 54) ascended the throne as George I., king of Great Britain and Ireland, with the tastes of a boor and the morals of a beast. It will thus be seen that Elizabeth Stuart gave a line of sovereigns to two rival nations. The Orleans dynasty it is true failed to continue, but the Brunswick line promise to overwhelm the country—to be plowmen and herds after people have learned that a nation may be prosperous and great without sultan or shah.

During the 30 years war (1618-48) the Palatinate like the rest of Germany was left in ruins; 27 years of peace succeeded and the country was again becoming wealthy. But Louis XIV., desiring to increase his country, raised a quarrel with Germany and ravaged the upper Rhine with sword and fagot. For three years the work of butchery continued, and in less than ten years Louis again started on a career of bloodshed. After burning the chief towns it was resolved to reduce the Palatinate to a smoking desert. The wretched people who escaped the sword were marched off to France to become subjects of the brute who accomplished their ruin. It was mid-winter and a half-million people had to leave the country or be butchered like rabbits; from being farmers, shop-keepers and mechanics, they crowded the cities of Europe as beggars. During the French revolution the Palatinate was again molested; at the peace of 1801 it was divided, France taking that part west of the river. After the tyrant's fall Germany got back its own and the Palatinate was apportioned to Bavaria, Prussia and Hesse—the title (like Poland) becoming extinct.

* * *

From the Heidelberg to Baden is about 60 miles, over a level country. The place is in a charming valley at edge of the Black Forest, owes existence to mineral springs, and counted one of the most fashionable resorts in Europe. Previous to 1872 (when gaming was stopped) some 40,000 persons visited the place yearly; but there has been a falling-off since. The valley is about 200 yards wide, a stream winding through its center. A beautiful lawn extends along one side, shaded with giant trees. Here one can recline on easy seats, roll on the grass or paddle in the burn as may suit his years or his fancy.

Elegant bridges cross the stream, here and there to residences or hotels embosomed in trees and banked with flowers. The trinkhall is a pleasant showy place and grounds in the vicinity are delightful—gravelled walks among flowers and bushes, fountains shooting up water and bands playing in afternoons. The hills each side are dotted with villas, while dense wood covers the heights. The hill to north is a fringe of the Black Forest and timber-cutting is effected with greater economy than in our country. The tree is cut at the roots and is not allowed to crush, maim and slaughter others in its noisy descent. Then every part is taken away and applied to some purpose. The logs are hauled by oxen to the nearest stream, then floated down to where they can be joined into rafts. On very steep hills the logs are slid endwise to the water. In the evening I saw seven ox-teams returning from the wood with old-fashioned hob-sleds. They were fine-looking beasts with horns nearly a yard in length growing horizontally from their heads.

Foiling a path up the hill three miles into the forest brings to a massive ruin known as the 'old castle.' It is apparently of great age and its huge rough stones seemed more in keeping with its forest surroundings than the sculptured walls of Heidelberg. Trees two feet thick are growing in its courts, a good-sized pine is springing from a rampart about 50 feet high, while others are pushing through walls and dislodging the rocks. One is disgusted by seeing those ancient piles fixed up like a mummy propped on end, segar in mouth, cane and collar. Workmen were here busy 'restoring,' while a gay flag swung from the highest turret. Tables, stalls and a dozen catch-penny devices were about this ancient tumulus, where one would love to be alone in meditative mood and interview the past. No wonder that mine ire kindled when, on looking into a court, I beheld an ill-favored specimen of the 'unclean beast,' like enough a lineal descendant of wild boars that ranged these woods before Remus leaped the wall of his brother.

From Baden to Strasburg may be 15 miles, the town about a league from the river. The Rhine is here crossed by a bridge of boats and by an iron railway structure. Strasburg occupies the site of a Roman city and was a place of strength in the middle ages. During the wars of Louis XIV. it was captured by the French and remained in their possession till 1870. In August of that year it was invested by the Germans and after a gallant defence, 450 officers and 17,450 French troops laid down their arms. It has since been part of Fatherland and will likely

always continue. It was fortified by the best engineers of France, but nothing could stand the Krupp guns of Essen. The bombardment of 40 days was terrible and besides knocking the works to pieces, the town got badly shaken. In 1873 the Germans began new defences and now the place is stronger than ever. Fortunately the cathedral escaped with little damage—one of Europe's noted fanes, dating from the 11th century. Its area is 360x130 feet, nave 42 wide and 99 feet in height; spire 464 feet, for a long time the highest in Europe. It was to have two steeples, but only one was finished; and the other remains a stump, which of course mars the appearance. The style is Gothic; material, red sandstone. A rose window in the end is nearly 50 feet across, the stained glass in it rated among the finest existing. The pulpit is of carved stone, 15th century work; the organ-loft is extremely handsome. The high altar is very gorgeous and terminates in a tapering spire. A partition cuts off about one-third the main building, and in the rear section stood the marvellous clock built in 1571 and used till 1780. The present wonder was built in 1838, stands some 30 feet high and about a dozen in width. It is often described and I will not attempt details. At noon the performance takes place. In a recess near the top a door opens and a figure of Christ appears; from another door the twelve apostles issue slowly in succession, each bowing to Christ in passing. In another part lower down a cock flaps its wings and crows thrice, with proper interval between; then Peter appears in attitude of woe. There are various other movements of less note. Justice to the bird compels me to say that its part was performed with marked success. St. Thomas' Church (Lutheran) has a marble monument to Marshal Saxe in the choir. The organ is 130 years old and is still in good condition. The church door is of iron, 13th century finish. Some of the churches are roofed with green and yellow glazed tiles, looking extremely gay when seen from a distance. Newer portions of the city are wide and handsome, but other parts are old-fashioned and not over clean. Many streets only two yards wide produce vile odor enough to perfume Commercial avenue in Boston. The population is over 100,000 and the chief industries are beer, sausage porcelain, brandy and morocco. The town is noted for manufacture of *pate-de-foie-gras*, a delicacy made from the liver of fatted geese. The article is put up in some two dozen places and the yearly value of output is given at \$350,000.

From here to Freiburg is about 40 miles; Offenburg passed on

the way is a walled town of 6000 people. It has a statue of Sir Francis Drake who introduced potatoes into Europe in 1586. Freiburg stands at edge of the Black Forest, a wooded hill rising to back, affording a fine view of town and country. Of its 36,000 people, one-fourth are Protestant. The place had a career of breezy variety, unsurpassed in political changes. During the peasant war 1525 it was destroyed by fire; taken by the Swiss in 1632 and '38; by the Bavarians in 1644; by the French in 1677; restored to Austria in 1697; taken by the French in 1713; next year the Austrians got it; taken by the French in 1745; destroyed by the troops of Coigny two years later; given back to Austria in 1748; became the property of Baden in 1806. In front of the barracks stands a gigantic victory memorial of 1870. Fountains, statues and monuments are not wanting; and a tall, massive gateway of the old ramparts is an interesting object. Streams of clear water run in the gutter of many streets.

The cathedral is a red sandstone Gothic, 350x100 feet and 100 feet height of ceiling. The nave is flanked by 12 great pillars on which are images of the 12 apostles. The last supper is represented in stone, with John leaning on the Saviour's bosom; another stone group shows Christ lying in the tomb with soldiers sleeping outside; image of Mary holding figure of Christ in her arms after the crucifixion. All the figures are life-size and very natural. Over one of the four side-altars hangs a large crucifix said to have been brought home by the crusaders. The figure on it is life-size, of gilded copper with embroidered tunic. Two rose windows with fine colored glass are deserving of notice. Sculptured figures over the main portal represent the wise and foolish virgins. The church is mostly noted for the elegance of its steeple, freely spoken of as unrivalled. It is of octagon form, 400 feet high and of stone open-work. The kaufhaus, near by is a curious 15 century relic, glazed tiles, old-fashioned gables and turrets.

From here to Basel is about 50 miles, along east margin of the Rhine valley. Vine-clad hills to left, a wide expanse of grain fields to right, alive with men and women reaping, mowing, gathering and hauling. Villages and hamlets are frequent, looking as they might have been there at the flood. Storks are numerous and tho not protected by law as in Holland, receive kindly treatment. Their nests (of sticks) are built on church towers and chimneys; a storey each year being added, they frequently rise many feet. Storks are considered birds of good omen and the house they choose for a nest is thought lucky.

Basel stands on both banks of the Rhine where it makes a right angle from west to north. The river here is over 200 yards wide and is crossed by two bridges, one a wooden structure high above water; the other of stone and six centuries in use. On the latter stands a stone obelisk with meteorological outfit. Two flying ferries are also used for crossing. The bulk of the city lies west of the river and a feeling of jealousy exists between the sections. In former years a town clock stood on the bridge, and a human figure put out its tongue and rolled its eyes with every tick of the clock—said to be in derision to the smaller Basel. This giving mortal offence, the whole thing was removed in 1839. Till 1870 Basel stood on the line between Switzerland and France; now the German province of Alsace comes between. The population is about 60,000, three-fourth Protestants. The town has two railway stations; that to left handsome, with reliefs of Newton, Humboldt, Euler and Laplace on the wall. The old city gate, with ponderous oak portcullis is an interesting piece of 14th century era. A stone fountain (about 400 years old) represents a bag-piper in full blast. The museum is rich in minerals, fossils, old coin and medals. The natural history room contains the skeleton of a moa, the bones being large as those of a horse. A picture gallery on the second floor contains some good modern paintings, but on the work of 'old masters' I refrain from offering opinion. A short distance from Basel a fierce contest took place 450 years ago between 1300 Swiss and over 20 times as many French, then in league with Austria. The Swiss with their usual valor, stood till only a dozen were left—the battle being known as the 'Swiss Thermopylæ.' A vineyard now occupies the spot and the juice of its grapes is called 'Swiss blood.' Twenty years ago a fine monument was erected in memory of the fallen braves.

The cathedral is a grand old pile and next to St. Paul's in London, ranks first among Protestant churches. It was built 850 years ago, but has been several times restored. It stands 70 feet above the river and a shaded terrace along the bank gives a fine outlook. The church contains a monument to Erasmus, besides many shields and memorial slabs. The pulpit is of stone, over 550 years in use; the organ is modern, but stands on a loft of 1380. In a hall behind the choir a great council was held in 1431, called by Pope Eugenius IV., the object being a 'reformation of the Church in head and members.' Over 500 ecclesiastics were present and after disputing for years, the convocation was dismissed without important results.

The hall stands as left by this remarkable conclave. St. Elizabeth church is a handsome Gothic of gray freestone, the gift of a Basel merchant who bequeathed over a million dollars for its erection. In St. Martin's the noted divine (Ecolampadius preached reform doctrines over 350 years ago—English church service is performed in it at present. On the whole Basel is an interesting place with lovely parks and rural attractions.

SWITZERLAND.

This small republic has the honor of being in the same latitude as P. E. Island—extending a little farther north and south. It is the most hilly country in Europe and among the smallest of independent states. Its area is 16,000 square miles, and only a small part is decently level or fit for tillage. Of every 100 square miles 31 are taken up by rocks, lakes and glaciers; 20 by mountain pastures; 20 by meadows; 17 by forest; 11 by arable land and one by vineyards. The vegetation differs according to elevation, and like all mountainous countries, rain-fall is generous. In this way not over half the bread required is raised in the country. Even the valleys are from 1000 to 3000 feet above sea-level and a fire is always welcome whenever the sun is hid. A third of the people are occupied at agriculture; two-thirds in cattle-tending, manufactures and waiting on tourists. Some mountain sides are wooded or rocky and barren, others are covered with grass and shrubs, and known as 'hill pastures.' In May when snow disappears, cattle are driven out, moving gradually upwards, about August reaching the summit. At even they are gathered to chalets for milking, the attendants remaining here all summer, making butter and cheese. In the valleys cattle are seldom pastured, the grass being cut and fed to them in stalls. When pastured, there being no division of fields by fences, the cattle are tended by women or girls who occupy their time knitting. Great economy is observed here as in other matters. Let us suppose a piece of meadow 100 yards by 50 ready for pasture, flanked on three sides by grain and roots; strips of board (sometimes a rope) are laid along the ground so as to mark off a few yards from the end. On this the cow or cows are kept until quite bare; then the land-mark is moved in farther. All cattle whatever sex or station in life have each a bell attached—goats and sheep the same. The bells are not large and harsh-sounding as in Canada, or the result would be torture. The country is not suited for sheep and only few are seen; but it is the happy home

of goats and they are accordingly plenty. In the morning a herd drives all the goats belonging to a village to pasture and in the evening he brings them back in like manner. The tinkle of so many bells constitute one of the rural sounds so dear to the Switzer. I have watched them coming into a village, the flock getting smaller as a number turned to right and left till all had reached their quarters. For intelligence they appear more like dogs and make themselves at home wherever they happen. Mountain slopes too steep and rocky for cultivation are clothed with forest, mostly spruce which grows to 5000 feet above sea-level. Except in cities wood is the only fuel and is used with great economy; no twig or fragment being allowed to waste. Even stumps and roots are carried long distance. Wood is cut about two feet long and piled round the houses, end to the wall, a space left at door and windows. The smaller sticks are bound in bundles, the twigs making good kindling when cut in leaf. Houses except in towns are built of logs, but the walls (six or seven feet high) are smooth and even as plank. Roofs have less than half the pitch usual in this country and they extend about six feet beyond the walls at sides and ends. These projections shelter the fuel just mentioned and the cattle at barns. The roofs are covered with split shingles about two feet long, over half inch thick, not smoothed at all except chipped with an axe. Nails are not used to hold them in position, but when a few tiers have been laid a long pole is placed horizontally on them and weighted with from a dozen to 20 stones according to length of the building. The poles are kept from slipping down by pins in the rafters. I judge there are generally from 200 to 400 stones on a roof, weighing together from two to four tons. With roofs so flat and such bad shingles, I cannot understand how they can refuse to admit water. A few of these log houses are large, two storey and quite artistic; some have a veranda all round where the people promenade in wet weather and also stretch clothes-lines.

It is computed that 900 square miles of the country are covered with glaciers—streams of ice moving towards the valleys at rate of six to eight inches in 24 hours, slower in winter. The origin of glaciers is not well understood, nor can the cause of their motion be satisfactorily answered. Some glaciers are over a dozen miles long, so that a rock placed on the upper part would take about 300 years to reach the terminus. The depth or thickness of ice is various, thicker at the start and diminishing towards the end, where it may average from 50 to

100 feet. The thickness of some glaciers at their source has been computed at 1500 feet, but no accurate estimate can be given. When the glacier passes over a rise or precipice the ice cracks in all directions, and after a few summers' exposure, resemble pinnacles and spires. While some glaciers are miles in width, the greater number are between 200 and 600 yards. Some are level in part of their course, others descend steep grades. The surface is often strewn with rubbish falling from the sides—near the lower end entirely concealing the ice. This debris carried down for untold centuries form moraines or ridges on each side, some of them over 100 feet in perpendicular depth. The outside of these ridges is often covered with forest, great boulders that would fill a room scattered among them. The lower end of many glaciers forms an arch perhaps 50 to 60 feet high and about 160 feet span. The ice keeps falling in great slabs from the roof, thus preserving the dimensions unaltered. The ice is beautifully clear, has a blue tinge and without the stratified appearance common to other ice. A brawling stream issues from every glacier, its size corresponding with the parent mass. The milky appearance of the water is doubtless due to the various rock (slate for instance) ground to atoms by the moving train. Perhaps no force in nature is more irresistible than an able-bodied glacier in its shirt-sleeves. The movement is slow but the momentum is beyond figures.

The population of Switzerland is given at about 3,000,000. Of every 1000 it is estimated 700 speak German (the official language) 226 speak French; 55 Italian, and 19 a Latin dialect called Romanch. Parts near Germany are essentially German, parts joining France and Italy the same. With respect to religion, about 57 of every 100 are Protestant and 43 Catholic; the latter have a majority in 10 cantons, the former in 12. The strongest Protestant cantons are Bern, Zurich and Vaud; the strongest Catholic cantons Lucern, Ticino, St. Gallen. The canton of Bern has over one-fifth the whole population. Complete toleration is extended to all religious beliefs except Jesuits. Education receives good attention and is to a certain extent compulsory. The country has four universities and about as many academies, besides schools of art. A remarkable feature of Swiss economy is the number of clubs—there being scarcely a pursuit or calling without a club or society to support it. The fact that in several cantons people have a direct voice in framing the local statutes does much to encourage political assemblies. The press is free and about 200 journals are devoted to political

discussion, 180 to literature and science.

The government is a republic with a constitution largely resembling that of the United States. Each of the 22 cantons has its local house and frames its own laws. In some half dozen cantons all voters assemble in the open air at certain periods to enact local statutes. The federal parliament consists of two chambers, the upper with 44 members (two from each canton), the other 140 being one for every 20,000 people, elected for five years. Every male over 20 is allowed the franchise. The executive authority is vested in a council of seven members, heads of departments and holding office three years. The president is one of these, elected by his colleagues. Bern is the seat of power. No landed proprietors exist and it is calculated that of the 500,000 heads of families 12 in 13 own land. In America where food and clothing are so abundant it is difficult to understand the rigid economy necessary here to keep the wolf at proper distance. Terraces for growing oats and barley are seen on mountain steeps, same as for vine culture; while patches are cleared among rocks only large enough to grow a few sheaves. When securing these niggard harvests sheets are often spread under and in this way carried home to prevent loss in transit. Barns are raised on props 12 to 13 inches high, a large flat stone on top, to discourage any enterprising rat who might be curious to examine the contents. The flail with its murderous and head-breaking record is still used for threshing. The reaping-hook is also used, and in mowing women take place in the ranks and swing the scythe with as much assurance as the best. Carrying grain, hay and brushwood falls to the lot of women, a part of Swiss economy most repulsive to my feelings. After all there is a fascination about these glorious hills and valleys that invests even misery with the charm of romance.

The country has no standing army to speak of, but every male has to serve as soldier from 20 to 34, should the country require it. As in Germany military drill is taught in schools, which I consider a good idea even were swords turned into sickles. Without consent of the confederacy no canton is allowed to maintain over 300 troops. Tho not favorably located for commerce the trade per head is larger than in more favored countries. It is not burdened with a standing army, the administration is of the cheapest kind and people have learned the wisdom of removing all barriers against international commerce. Besides the leading industries, a good deal of money is left by

foreign travel. Piles of what they call wood sculpture is for sale at every hamlet and cottage along tourist routes. The long stormy winter is turned to account this way, which less provident people would spend in sleep or gossip. I once priced a group, which the owner offered to land on this side for \$60—he paying freight and taking all risk. The work might take three or four weeks to make, and \$60 there would probably buy as much as \$160 in this country. Immense quantities of ornaments and bric-a-brac are made of various kinds of rock found in the district. Then every male Swiss along the routes of travel is a guide, some of them licenced; the regular tariff is \$2 per day, and more for dangerous places. People are not accustomed here to extend favors for nothing. If a native answer yes or no to a question, or point east or west with his finger, he expects pay; and should the traveller forget, he'll remind him. Roads are excellent and the lakes are well supplied with steamers. Distance is measured in kilos, five English miles being equal to eight kilos. People never speak of distance, but of the time an average walker takes to travel. They say a place is three, six or nine hours off according to conditions. In spite of manifest engineering troubles, the country is well supplied with railways. Passenger cars are on the American system, except where they border on France. Telegraph communication is general, the length of wire in ratio of population surpassing other countries. The tariff is cheap—10 cents for 20 words and 5 cents for every 10 additional.

Switzerland started early in the business of watchmaking—Geneva, Neuchatel and Locle, being the principal centers. Some 200 years ago an inhabitant of the latter place procured a watch, an article then unknown in the country. Needing repair, he took it to an ingenious mechanic for correction. Richard succeeded, and making himself familiar with the parts undertook to build another. Without knowledge or tools the difficulty may be imagined; but great difficulties vanish before an earnest will and honest purpose—the watch was finished and caused a sensation in the district. Then the idea got abroad that where one has led, others might follow. Many who had been spoiling for something to do in winter set to work, and behold watches were made in cottage and hamlet, on wild mountain side and sequestered valley.

The Rhetia were the earliest people to settle this land of worders. These were supplanted by the Helvetii (a Celtic race) in turn subdued by the Romans before they invaded Britain.

The country was overrun by Northern nations early in the 5th century and races got so hopelessly mixed as to leave no trace of the original people. In the 12th and 13th centuries Austria got the upper hand and during the 14th, took place the struggle for freedom. To this time belongs the legendary story of Tell, the national hero, the Wallace of Switzerland. Young readers will be sorry to learn that no mention of either Tell or Gesler is found in authentic history and good authorities declare the whole thing a figment. But the battles of Morgarten, Morat and Nancy were no fables, at each of which their Austrian oppressors were badly worsted and finally gave up the game. At time of the French revolution it was made a republic of 19 cantons, but in 1815 its independence was restored, nine leading powers consenting to preserve its soil from invasion. From 1830 to '48 the Ultramontane and Protestants had a good deal of contention, ending in expulsion of Jesuits and suppression of monasteries. In 1848 a new constitution like that of the United States was framed, modified in 1874. In mountain regions one often meets persons with goiter, an unsightly enlargement of the neck in front. Cretans are persons with various degrees of idiocy, usually afflicted with goiter, tho not always. But one afflicted with goiter may in other respects be sound.

From Basel to Lucern (55 miles) is one of the most delightful routes in the country. The day was insufferably hot at starting, but we had not proceeded far when cool gusts began to sweep from the mountains. The track at first runs low in the valley, gradually ascending the hillside to left. Lovely vistas are frequent—the same with hamlets and old-fashioned churches. Some houses thatched with straw, others have tiles—no fences along roads and nothing to mark individual possessions. Tunnels are frequent. As the track ascends, views in the valley below are enchanting—winding streams, lovely smooth roads, ancient bridges, people at work or in groups walking along the highway, village and hamlets nestling among fruit-trees, meadows smooth and green as a lawn dotted with trees, the heights generally wooded. No cattle are seen, the grass being cut and fed in their quarters. Clouds send down frequent contributions and grain crops are seldom attempted. Peat is being cut and spread to dry, or set up in heaps of a dozen or two together. In Scotland peat are dug in bogs far from houses; here as in Holland they are dug near the doors and under soil tilled for centuries. No indication of wealth and seldom of comfort, yet I am not

surprised the natives forsake their rural homes with reluctance. The track is now passing near the lake and town of Sempach where on July 8, 1386, the Austrians were signally defeated by the bravery of Arnold von Winkelred, a name that will always rank high among patriots and heroes. It was a hand-to-hand combat and the Swiss were likely to come off second. Winkelred leaped forward, grasped all the Austrian spears his arms could reach, making a passage through which his compatriots rushed. The noble heart was pierced with many lances but the foe were defeated—the country was safe.

Lucern, with 15,000 people, is on both sides the Reuss where it leaves the lake with swiftness of a millrace. The stream is about 60 yards wide and is crossed by four bridges, two of them old wooden structures, roofed. Till recently the city had walls and bastions. The situation is very fine, the Righi and Pilatus to left and right—with the glory of all lakes (Lucern) in front. Behind, is an amphitheater of verdant hills, with gay beer-gardens and restaurants nestling among the forest. The greatest lion of the place is cut in the face of a rock behind the city. It is 28 feet long, represents the beast transfixed with a shaft and in dying condition. It records the bravery of 26 officers and 760 Swiss guards who perished while defending the Tuileries, August 10, 1792. It was designed by the great sculptor Thorwaldsen, cut in 1821 and is one of the grandest monuments in existence. The rock is overhung with trees and bushes; below the figure, officers' names are inscribed. On a rocky hillside near by, a group of glacier mills were discovered not many years ago. These are round holes in the slate rock, varying in size from two feet to about 16 wide and deep. They are supposed to have been formed by granite boulders finding lodgement in beds of glacial streams and kept in motion by the current. The stones are in several of the pots, which they fit exactly.

Few bodies of water afford finer scenery than lake Lucern. Its greatest length is about 25 miles, average width two miles and much less in places. It could hardly be more irregular in outline. People of the country call it 'lake of four forest cantons,' because four cantons touch its shores. Besides the town of Lucern, about 30 villages and hamlets are along its margin, nearly all supported by tourist travel. Of its six projections that to south is eight miles long and known as lake Uri, presenting a wild, almost terrible aspect. Its sides are nearly perpendicular walls of rock, stratified in the most reckless

fashion. Along the east margin a road is cut into the rock high above the lake, with a dozen tunnels in its eight-mile length. Here stands Tell's chapel on a ledge jutting into the water, with a mountain 7000 feet high at back and 600 feet of water in front. It is a small pavilion, open in front, with central spire, and if tradition be correct, marks the spot on which Tell leaped from a boat when being conveyed to a dungeon at Kussnacht. Till late years it could only be reached by water. At south end of the lake is Fluelen, a scattered village with railway station and terminus; and two miles up the valley is Altorf, with 3000 people, capital of Uri canton. Here dwelt the legendary Tell and a great plaster statue marks his position while shooting; a fountain 100 yards off showing where the boy stood.

About nine miles east of Lucern is the Righi, nearly 6000 feet above sea-level. It is not a single cone, but an irregular group, 20 miles round the bottom. It is a favorite mountain to climb on account of its easy ascent and the splendid view from its summit. A hotel stands on top at which many tourists remain over night to view the sunrise. The lower slopes are clothed with fig, chestnut and almond trees, while its pastures are said to feed 4000 cattle. The summit is crowded with Jerseys, and from daily intercourse with people and receiving gifts of bread and other dainties, they are tame and companionable as spaniels. The average time for ascending on foot is four hours; but a cogged railway makes the ascent in about 80 minutes. The track is four miles long; steepest grade 1 in 4; speed, a mile in 20 minutes. About an hour after starting a tunnel 82 yards long is passed, then a ravine 75 feet deep crossed on iron trellis. The view from its summit is very attractive. Lucern 9 or 10 miles off, seemed half a league, and distance all round seemed to contract in proportion. The towering mass of Pilatus a dozen miles to south-west was the most evident feature; while along the south and east horizon snow peaks formed an array of teeth and splinters. The nearer landscape spread below consisted of mountain, lake, hill and valley, fields and forest, town and villa, winding roads, railway trains bending round hills, popping into or out of tunnels. Distance shrinks like a rubber band when freed from tension. A lake nine miles long, its nearest point over two miles from where I stood, had dwindled to a mill-pond. A steamer some half dozen miles away appeared a toy at a quarter mile's distance. I could see the smoke from its funnel, note the streaks its keel left in the water, but could discern no forward motion. At length it

reached port—Airth, a small place two or three miles below where I stood, looking near enough to toss a pebble. I could see the men running to and fro when bringing the boat to mooring, could see passengers land and others embarking; every movement was distinct, but the boat appeared a foot or two long, the people exactly like ants. About two miles beyond Airth is Rossberg, over 5000 feet high, down the side of which a disastrous landslip occurred in 1806. The summer had been remarkably wet and at 5 p. m. on September 2nd, a slice estimated 900 feet long and 100 thick slid down 3000 feet, covering four villages and instantly burying about 500 persons. A lake three miles long was one-third filled with rubbish, its waters being thrown up 60 feet and partly destroying a village on the opposite shore. The beautiful valley was in a moment reduced to indescribable wreck, traces of which are yet seen.

Pilatus is a remarkable cone seven miles south of Lucern, the highest of its four peaks nearly 7000 feet above sea-level. At its base are rich pastures, farther up, a grim forest; the higher parts, wild ridges of rock. The summit may be reached in five hours, and a railway ascends from Alpnach, return fare \$3.20. In clear weather the view is splendid; but Pilate usually wears a cap and shawl of vapor. Besides Lucern, the most important seats by the lake margin are Weggis, Vitznau, Gersau and Brunnen, their feet in the lake, their backs to the mountain. They are mostly hotels embowered in trees, a landing in front at which passenger steamers call a dozen times daily. Not infrequently a terrace shaded with trees is built to the water, where tables are set and boarders take in with their luncheon the views from the shore. The mountains some distance up are green as a lawn, dotted with fig-trees and walnut—the picturesque Swiss dwellings nestling among them. Seen from the water, these slopes resemble pictures on gallery walls, only vaster and finer. I see those beautiful hamlets in their glorious setting, but I cannot describe them. Gersau (now boasting of 2000 people) was four centuries ago capital of the smallest independence that ever existed. The whole concern (country and city) scarcely numbered a thousand persons, with an area of a league in dimensions. The French with unexampled meanness, pounced on this tiny morsel and in 1798 reduced it to bondage. Brunnen (two miles to east) lies in a bend of the lake, a place of hotels, with scenery in front unsurpassed in grandeur. A short distance off is the field of Rutli where (on night of Nov. 7, 1307) 33 men of the Uri swore to each other

not to rest till the country was free. They redeemed their pledge and the spot is held sacred. While most hotels are in nests by the water, some are perched on heights where access is gained at the risk of adventure. Like all mountain lands, the weather is naughty: the morn may be clear but it's the smile of a traitor. The mother may forget her baby (boy at that), but the Swiss forsakes not his umbrella. It was once blue, but time has toned its color; it has seen generations fall and others replace them; witnessed revolutions of states and fall of empires, its stick is worn at both ends right to the cotton, but it never once remains at home forgotten. Then the cold is a concealed enemy, ready to pierce the unwary whenever the sun is hidden.

From Alpnach about 20 miles bring to Meiringen, a pleasant village in the Aar valley. Near by, the stream passes through a gorge in the solid rock, half mile long, perhaps 200 feet deep and varying in width from one to five fathoms. It looks as if worn by centuries of attrition and glacier mills are numerous in the sides. The Aar rushes through with reckless speed, and in the narrowest part with wonderful racket. The day was hot but cool enough in this canyon. A footway of boards runs along one side on iron braces fastened in the rock, and to justify the admission fee, I was told it cost \$14,000. A mile or two off, a considerable stream makes a daft leap into a wild, gloomy chasm several hundred feet below. A log house stands 50 yards in front and for 10 cents one can gaze at the falls through a window. Violent gusts of spray keep the place continually drenched with water.

On July 22nd I started for Grindelwald. A good deal of hard climbing, then a valley with ramparts of rock several thousand feet. A fellow had established himself here with an alpine horn to disturb the echo for accommodation of tourists and receipt of pennies. The instrument is 7 or 8 feet long, made of wood, closely wound with cane or rattan. It has a brass mouth-piece and from the size of a broom-stick it gradually increases, flaring at the lower end to six inches. The range is about three octaves, the sounds are soft and not unpleasant—perhaps indeed because the lower note resembles a dinner horn, thus calling up cheerful recollections. There is no attempt at playing a tune, and the pitch I suppose is regulated by the volume of air. Here for the first time I saw the track of a landslide which had plowed its way through a piece of forest, tearing, rooting and breaking trees, digging a trench several feet and carrying great rocks in the general tumble. The valley

below was strewn with boulders, from the size of a cottage, that had reeled from the heights at one time or another. It is difficult to imagine a scene of confused wreck surpassing the work of an active landslide. Soon the point of Wetterhorn appears to south, sharp and clear as diamond piercing the ether. Rosenlui glacier is next seen to left, diminishing in size and noted for the clearness of its ice. After a few miles of forest and considerable climb through hill pastures, we are on top of the pass, 6500 feet above sea-level. Here is an indifferent inn with fare that only the hunger of mountain climbing makes respected. From the summit, Grindelwald is seen down in a mist. It looked ten minutes off and I laughed when a fellow-traveller declared it three hours to the valley. I did well to laugh first, as I exceeded that time in reaching. When about half-way down, one of those fellows with only sense enough to blow, began the alpine-horn racket. The clear rocky side of Wetterhorn rose 8000 feet from where I stood, its base a mile to left. Five or six seconds after sounding, an echo began to reach us, ascending in waves from crag to crag till it ceased at the apex. I have heard the song of birds in their various moods and every variety of instrument from the grandest organs to the humble jewsharp, but nothing to approach that mountain echo. I fancied its wavering course could be seen in scintillations of gold till it reached the summit. It seemed too ethereal for earth, was it a voice of the spheres? Giving the performer a gratuity, I reluctantly moved on, my inward consciousness all the time shouting that I must hear those celestial sounds repeated. After dawdling on for a half mile, picking alpine blooms, but thinking echo, I started back, the ascent requiring more effort than six times the length on a level. Arriving at the focus, I threw myself down, beckoned to the horner, held out a dime and made signs for the 'alpine.' The matinee over, I started down, reached Grindelwald, engaged quarters and went forward prospecting. The approach to a glacier near by was secured by tariff and a small chamois goat was shown for like figure, from both of which a good sum was extorted. The ice at lower end of the glacier was perhaps 60 feet thick and 80 yards wide, arched as already stated. A fellow had mined a grotto of about 20 feet, and inside a person looked blue in however good spirits. Were the grotto larger and shown by electric lights, the effect would be startling. Hotels near glaciers are at no expense for ice—the supply has no limit and sure for all ages. There being a few hours before night I started up along the glacier in search of adventure, and was nearly

successful. After ascending a little the rocks had to be climbed by temporary ladders and finally I came to a wild savage gorge, the ice rent in great fissures, perpendicular ramparts each side, and everything tossed about in the wildest manner. On starting to return the path refused to develop. After long search and when deliberating whether with my thin garments I would be alive on the morrow, a young man and his sister appeared, he with alpenstock and coil of rope round his shoulders. Noticing me going up late and not returning, they started in search—not too soon, for a thick fog came up and the curtains of night were descending.

Next day was bad for mountain climbers (and the valley was full of them), pouring rain and fog. I paid a visit to another glacier—a wild confused place, fenced in and with a cot near for receipt of customs. Natives here are wonderfully keen for business—even in pouring rain girls were stationed along the track, in shelter of rock or umbrella, trying to sell pictures, wood sculpture, berries and trinkets. Beggars, lame, halt and variously afflicted, sat from morn till night (rain or shine) at their dreary post. One is continually waylaid by men and boys importuning to be taken as guides or porters. They seem to have no idea of doing the smallest service without reward—for a word spoken or finger pointed, a fee is expected. Grindelwald is a pleasant valley with church, manse and some half dozen hotels. The place is irregular in outline, thickly settled—torrents and streams everywhere brawling and rushing.

July 24th I set out for Laterbrunnen by Manlichen pass, nearly 8000 feet above sea-level. The ascent from Grindelwald is not very steep and done in four hours, the slope consisting of hill pastures, swarming with white and yellow cattle, fat enough to butcher and clean as antelopes. Near the summit snow-drifts were still in hollows, cattle lying on knolls alongside and chewing their cud. All cattle of whatever age or sex have bells attached, goats and sheep equally provided. The bells are small and sweet-sounding—quite different from cow-bells in this country. The combined tinkle of so many produce a sound impossible to realize from written description. A great variety of flowering shrubs carpet the summit, while lower down the homely buttercup gave its tinge to the landscape. The pass commands a fine view in clear weather, and having been wet for some days, I decided to await improved conditions. The inn was a frame building intended for summer, 8000 feet above sea, far too airy for comfort. The bed-clothes were few and

sleep had departed—I was too busy shaking to spend time in slumber. Soon as daylight became an established fact I sallied out from my prison. It was July 25th; the ground was white and frozen, the visible heavens were without cloud, the sun was just peeping, the discomforts of night were forgotten, the outlook was gorgeous. I betook myself to a cone a few hundred feet high at half a mile distance and began observations. To north appeared a confusion of mountain and valley, without order or system; to north-east a series of jagged peaks with snow patches among them; due east a similar view a great deal more distant, looking dim and soft through a haze of purple; near at hand, Grindelwald valley appeared dim, indistinct in an ocean of vapor, obscured by the towering mass of the Eiger. Southward, from east to west, the Bernese Alps an unbroken glare of snow covered summits, the early sun touching their peaks with colors. The Wetterhorn, Wellhorn, Schrekhorn, Finsterarhorn, Eiger, Monch, Jungfrau, Silberhorn, each over two miles perpendicular height, towering in their dazzling mantles. Besides these dozens of peaks less high had a place in the grand procession. To west appeared mountain and hill promiscuously pitched; close at hand, Laterbrunnen valley, over 5000 feet below and as near perpendicular as one cared to have it—its cascades, hamlets and churches looking dim and obscure through an ocean of vapor. To north-west part of lake Thun appeared as a mirror. The fascination, the glory of that scene! how idle to attempt a description. From the slope towards sunrise came up faintly on the still air the confused tinkle of hundreds of cow and sheep bells, the lowing of cattle, barking of dogs, shouts and laughter of children, the dairymaid's song as the bovines were milked at the chalets. No wonder the Switzer pines with homesickness in foreign lands—that he sighs for sights and sounds of his native country. What are the temples of Milan and Rome to the glories of Jungfrau and Wetter? How hard and secular is the voice of bands to the commingled rural sounds that ascend through miles of ether. If his hut be poor the supreme majesty of earth is before him; if his alpine horn be uncouth, the hills return its rude bray in sounds fit for the upper palace.

I returned to the inn, had 'coffee' and after another feast of gorgeous sights, addressed myself to the labor of reaching Laterbrunnen. There is a mysterious and provoking deception in regard to distance among mountain and valley, and it seems no one can learn from the eyes of another. People here don't

speaking of distance—in that they are honest, as they know little about it. I would no more venture a guess at distance in this country than at the erratic career of a comet. Were I going to a spot that looked near enough to strike with a pebble, I would set out with young day and take a load of provisions. Had I to cross what appeared a brook a yard from each side, I'd examine with a 20-foot pole lest the treacherous thing might float the 'Parisian.' I first noticed the trick distance among hills has of stretching like a piece of elastic, when passing through Glencoe in Scotland. A cave was pointed out in the side of Buachail Etive, the mountain rising like a wall a few yards to our left. The horses were going at a brisk canter, yet mountain and cave kept right abreast for I think 15 minutes—then they began perceptibly to loiter.

But I am off for Laterbrunnen. The place looked near enough to cast down an apple, yet hours were required to reach it. Could one let himself down in a cask, his career (if not safe) would be rapid. After zig-zaging for miles, with a general spice of danger, I arrived in the valley at noon. Laterbrunnen means 'nothing but brooks' and the name is judicious, as brooks are every few yards rushing, brawling, forming cascades and running races. Hotels along this steep are many, with the supplies and not a few of the boarders have to be carried on mules. Another style is more breezy and festive: a padded chair is strapped to the back of a stout porter on which the lady takes her position. The ascent is steep as an ordinary roof and every few yards, stands are provided on which the carrier rests his precious burden. A procession of carriers thus laden, passing one of our towns would gather more than a circus—here they attract no attention. There is a kind of road, but far too steep for wheeled carriage. The valley is half a mile wide, flanked by almost perpendicular ramparts about a thousand feet high. A small reckless stream rushes over a brink 980 feet from below, which it reaches in mist. Some miles beyond, a larger stream shoots from a cleft in the rock as if discharged from a cannon. The day was roasting hot and the natives were securing their hay, as usual carried to barns on the back of their women. Shortly before, a torrent of mud had covered acres of grain and meadow. Large trees were uprooted and broken like pipe-stems. Even in summer only a few hours, sun gets into the valley. The expansive forehead of Jungfrau is gorgeously seen to the south. The place is terribly infested with small dealers in wood-sculpture alpenstocks, pictures and thousands of bric-a-

brac. They have everywhere stands by the roadside and importune people of every kingdom and tongue to purchase.

Few places are so haunted by tourists. The principal hotel was so crowded that with difficulty one received attention, while the place was barricaded with coaches, mostly tourists from Interlaken. During my seven-mile walk a coach every two minutes passed me. The road is smooth and hard, while the scenery is attractive. Steep sides of softest green, studded with fruit trees, brown cottage, frequent streams forming white streaks and cascades into the valley, forest patches higher up, with limestone overtopping. The rest is mostly through wood, a burly stream racing alongside, falls into lake Brienz. Lakes Thun and Brienz are end to end in the Aar valley, each about nine miles long and very deep. They are separated by two miles of plain on which stands Interlaken, with 2000 people. It is supposed that originally both lakes were one and that in course of ages the rubbish brought by two streams formed the land in question. Lake Brienz is flanked by steep wooded hills each side; hamlets are along shore which the steamer visits. Near the east end a stream dashes down in seven cascades over a thousand feet. A hotel at the top, reached by a cogged railway, is a favorite retreat. During summer nights the falls are illuminated by colored lights. Brienz (with 3000 people) is at east of the lake, and a mountain 7000 feet behind it. Here the railway and steamers connect. The view towards Interlaken was lovely—a soft bluish haze over the water and rosy tint against the mountains. In the opposite direction the view was equally fine—the Aar valley, bounded by ramparts of rock, is perfectly level, the river rushing through the center, the shores nicely paved with pebbles. The valley was filled with haze; Meiringen at its upper end, showing dim and soft through the smoke of its chimneys. Snow peaks beyond looked beautifully purple.

From Meiringen to Brunig pass is $4\frac{1}{2}$ miles, with ascent of 1400 feet, requiring a cogged rail and special engine. Since passing through here on the 20th my rambles have been entirely in Bern, a canton greater in extent than a dozen of the smallest and with half-million people. From Brunig to Alpnach, the scenery tho not first-class is very attractive. The track being on high grade, the valley is seen below with its hamlets on border of lakes, its cots among fruit-trees, its soft green meadows, its smooth winding roads and patches of forest. Lake Sarnen is three miles long with both its sides well settled. The district

farther on appears of greater prosperity than most parts of the country. Some hamlets have no regular streets, but a path between houses. Sarnen at north end of the lake has 4000 people, some good houses and several churches—one of them handsome. The weather in these parts is greatly uncertain, or as farmers say—'catchy.' If by some streak of luck hay becomes dry, it is sheer misfortune to get it re-damaged, and at approach of a shower neighbors assemble as if to extinguish a fire. Along here I noticed a specimen rush of this nature. The morning was fair but clouds soon developed and gave unmistakeable signs of letting fall their contents. The train held up at a station; in a field near by hay was in wind-rows and apparently fit for housing. Pioneer drops began to fall and a scene of great animation presented—what a subject (I thought) for an instantaneous photo. People began to rush in twos, threes and half-dozen; some had ropes, some forks, others nothing and all attacked the hay in deadly battle. The greater number began carrying off in armfuls; others tied bundles in ropes and shouldered them with mighty effort. The shower had raised a furious squall and began driving everything hither and thither, but fortunately in right direction. Those having armfuls lost their hold, those with back-loads were knocked down, while the bundles kept on without them. Counting noses there must have been 16 boys and girls, men and women. It was amusing to see the smallest dots carrying enough for a lamb's breakfast, tumbling and tossing—now hid from sight, then appearing. To give a breezy variety, several dogs joined in the frolic—chasing and jumping and in their own way giving voice to their gladness. As the train moved out rain was falling with steady even patter, but I believe most of the *foin* was got home without serious damage.

Arrived at Alpnach at 1.30—pouring rain in afternoon. On the train from Brunig I heard some planning to have a time on Pilatus, but their plans were distorted. Soon a train load came down, in the worst way disgusted—nothing above but clouds and fog, with cold that was heartless and piercing. Next day I took shipping for Fluelen at south extremity of lake Lucern; rain fell in torrents, with a mean sneaking cold that pierced one's inmost substance. Slightly rigged as I was, I fail to remember a day spent with greater discomfort. While the lake appeared ink, the rain caused frequent cascades and white streaks down the mountains. I arrived at Fluelen by noon from which less than 100 miles by rail brings to Italy. The

valley has high granite walls each side, diminishing in width from a league at Fluelen to a mere gorge some dozen miles up, with a stream dashing madly against rocks and other obstructions. The lower valley is thickly peopled judging by the frequency of village and hamlet, the Reuss wandering among them. The track constantly ascends, passing over deep gorges and through frequent tunnels, while a good wagon-road doubles and curves high up in the valley. At a certain place I noticed a hamlet with its church perched on a hill to right. Just then we entered a tunnel and on emerging there was a village with its small fane on top of a bunion. Could there be two hamlets with temples so exactly alike? No; but the track had made a complete turn or loop and is now on higher level. The valley has now become steep, rocky, tortuous—frightful jagged peaks, frequent tunnels, a large stream dashing madly among wreckage, then out of sight into deeper gullies. Rain was pouring, cold was piercing, patches of snow at short distance. Could a rabbit or crow make ends come together? But stay—this place is almost thickly peopled: in the very worst and wildest parts are hamlets and churches. How terrible must be the fight for existence among this chaos of rock and rush of waters—where a glimpse of honest sunshine is almost rare as an eclipse, where even the cold of summer calls for as many garments as one can carry. Then what a firm hold religion has on the human subject when in circumstances of such poverty, churches are built and stated worship maintained. This was the canton of Uri, the home of Tell and the 33 sworn patriots who met on the historic field of Rutli. One was almost pained to note the device used to dry some grass that had been gathered in handfuls among the rocks. A bunch is placed on a stone, a short stick is laid on top, then a handful of grass, then a stick and so on—the whole pile (sticks omitted) making perhaps a slim feast for a wether. Two deep rocky gorges appear and some magnificent scenery as the train steps out of darkness. But it is only for an instant and the iron-horse brings up at Andermatt, the entrance of St. Gothard tunnel. The valley here may be 100 yards wide, flanked by almost perpendicular rock. Andermatt, if small, is important, has several large hotels, fine railway station and police.

The St. Gothard tube, over nine miles long, was commenced in 1872, finished in 1880 and cost over ten million dollars. The center is 3780 feet above sea-level, but over 6000 feet below the summit. The train takes 26 minutes in darkness; the first

half being up grade is slowly travelled; the furnace is constantly being filled and the smoke is unpleasant. The train emerges at Airolo in canton Ticino, a change is noticed in the temperature, Italian words are on the station and that language is spoken by the people: except in mode of government they are as much Italian as Venice. The landscape is now less rocky, the style of houses different, while the people's dress show a compromise with the sunny land. The track follows Ticino valley, a mile or so in width, lofty hills each side streaked with snow, houses and hamlets wherever there is footing, train about half the time in tunnels, deep gorges to right but unbroken rampart to left, torrents and cascades tumbling down mountains, granite split thin like boards and stuck on end in the ground for fencing, flat stones on roofs as shingles. Here mountain sides are steep and rocky as any Swiss goat could covet, a small church on a sharp rocky peak several thousand feet above the valley—if used for worship, how do people get to it? Now grape culture begins, not the same variety as along the Rhine, but growing like hops and trained on arbors. These are made of granite split like fencepoles, from about seven to 14 feet long. The district is entirely without wood and this application of stone shows how necessity quickens invention. Several falls and cascades are streaking the mountains to right.

My next stay was at Biasco, a village at junction of Val Blegno with Ticino. There being an hour or two, I walked up the former till night obscured proceedings. During this stroll I met 14 women and three men in several companies, carrying loads of brushwood, grass and fern which they must have brought a great distance. Some used creels, others carried the stuff tied in ropes, the poor things bending low under their burdens. I mention this trifling incident to show the terrible hard times women have in this country. Not only valleys but mountain sides are dotted with wretched-looking hamlets, seemingly abodes of stalwart misery. It is stated that people here live principally by chestnut roasting; but I saw few trees to supply such business. Roofs of houses and churches are covered with stones from one to two inches thick, laid in tiers like shingles. The roofs are of usual pitch but the stones are laid horizontally; and whether they remain in position by their weight or are laid in cement, I failed to discover. The ridge is finished by a tier laid flat on it, and whether these roofs a 'mit rain or not I am unable to answer. Some houses roofed in this way are three storeys high and of no mean pretensions. Each

valley hamlet had its church, and one into which I stepped was gorgeous—a gay image of the Virgin, pictures and crucifix. In ringing for worship (as in Italy) the performance is introduced by a few strokes on a small bell, followed by the principal actor. I did not ascertain the object of those introductory remarks, unless to make the sound of the larger appear more grave and sonorous—at least it has that effect. Women here dress in Italian style, even to their clogs—a wooden sole with leather strap nailed to each side. Nothing short of skill and talent could keep them in position, while the clatter they make on floors and sidewalks is startling. In ascending stairs they are judiciously left at bottom. No stockings are worn and bare toes are seen in front of the straps, which are sometimes patent leather. Next day was Sabbath and I could hear target-shooting along the valley. Chapels, crosses and images are frequent along roads, on face of hills and extreme heights. From the frequency of these symbols in mountain lands I have an idea that people inhabiting such places are more devout than dwellers in plains. This is quite natural, as danger quickens devotion and mountains are beset with accident. Those who were gay and thoughtless a minute ago, soon as the ship strikes are shouting for mercy. Dominion history states that in 1760 people of Quebec province became so regardless of spiritual things as to neglect almost entirely the confessional, till a few shocks of earthquake sent them off to the fathers in dozens. It is a flat truism that life is everywhere uncertain; but among mountains danger is ever present—danger from precipice, from falling rocks, landslides, avalanches and perishing in snowstorms. Even the crash of thunder, rioting and romping among the clouds is vastly multiplied in mountain countries.

The scenery along here is quite fine; hills less stern and rocky, frequent cascades, ditto hamlet and village. Hills farther on assume the form of individual cones, pitched about like ocean billows. Bellinzona with 2500 people, stands on the top and side of a hill and is capital of Ticino canton. It is Italian in style of buildings, language, dress and appearance of people. The outlook is extremely fine; the north corner of lake Maggiore is seen ten miles to west, framed in green mountains, looking soft and dreamy through a purplish mist. The valley now becomes a broad plain, several miles in width, in many parts a forest of fruit-trees, interspersed with meadow and patches of corn. The whole is shut in by mountains of easy slope, the lower parts clad with vine; higher up, trees and bushes.

Distant hills have an appearance of dreamy blue, while snow peaks are in sight to north and east. Locarno with about 3000 people is beautifully placed on rising ground at north corner of lake Maggiore, overlooking that body of water. It is only a few miles from the Italian frontier and is in every respect an Italian town. The Madonna church stands on a wooded eminence 450 feet above the lake. It is a curiosity in architecture, built in many stories and sections. In the vestibule is a life-size group representing the birth of Christ, babe in manger, its mother, Joseph, oxen, asses and sheep standing round; another group represents the magi offering gifts; a third, the presentation in the temple; a fourth, the last supper; a fifth, taking down from the cross; a sixth the ascension—disciples and women intently gazing at figure of a dove ascending. The church is crowded with images and pictures, that of the descent considered most famous. The altar is extremely ornate, as also ceiling above the choir. The terrace in front presents a most delightful view of varied attractions.

ITALY.

Lake Maggiore is 37 miles long, four in average width and over half mile in greatest depth. Nine miles of its north end is in Switzerland and at time of crossing the line an official asked each passenger if he had contraband goods among his luggage. To this all gave a negative reply and probably they were right; but it occurred to me that anyone having such goods would conceal the fact by denying possession. Except in its south part, the scenery along the lake is delightful. Wooded hills rise steeply from the water, handsome villas along the margin peeping from among trees and flowers; farther up, village and hamlet are frequent looking as if built without disturbing a tree, and little to be seen except their church spires rising above the forest. The steamer makes frequent calls at places along shore and at Canobbio an Italian village, a swarm of ragged, dirty children poured down to the landing as if a poorhouse had disgorged its contents. Strange that in this beautiful sunny land, its hills clothed with fig, olive, vine and myrtle, the valleys with corn and rice, that poverty should be so evident and beggars so frequent. About 15 miles from the south end are several small islands, two of which are noted and formerly belonged to the Borromeo family. About two centuries ago one of them erected a splendid chateau on Isola Bella and converted the bare rock into beautiful gardens rising in terraces 90 feet above the lake

and planted with magnolias, cypress, orange and lemon trees, laurels, oleanders and cedars. Shell grottos, fountains and statues are among the beauties of the place. The chateau is richly decorated and contains a numerous collection of pictures. Isola Madre is also arranged in terraces and scarcely less handsome. Another island of the group is entirely taken up by fishermen. From this part of the lake the Penine Alps appear to west in mantles of white.

I stopped at Luino on July 28, a small stylish place on east of Maggiore, with a statue of Garibaldi on the esplanade. From here a railway 10 miles long and 24-inch wide leads to lake Lugano, following a tortuous gorge and springing from side to side of a rushing torrent. Hills are covered with young beeches, which on growing to size of small fence-poles are cut into lengths of 18 inches and bound in fagots, even to the smallest twigs. Villages are perched high on the mountains and church bells sound grandly among those hills and glens. Women and children are frequently met carrying creels or loads of brushwood. As we approached the lake I noticed persons in uniform a short distance apart, with sentry-box near by. They were customs officials, watching for persons carrying smuggled goods across the line. In due time we reached Lugano and presently took shipping for the town of like name, over a dozen miles off. It was night before we reached, and tho the day was hot the sun had no sooner disappeared than the air got piercing cold. This was my experience on all Italian lakes.

Maggiore and Como are 24 miles apart and Lugano is midway between. It is 18 miles long, scarcely a mile wide and more tortuous than a fish-hook. The lake is part in Italy and part in Switzerland, causing one's impedimenta to be frequently looked into. One forenoon my slim stock of valuables was here examined on three occasions. Besides the town of Lugano, about a dozen villages are ranged along shore where there is any kind of foot-hold. The slopes are densely wooded and hamlets are frequent—from one point I counted at least a dozen. Places however small have their temple, and often nothing can be seen from below except the church spire. Lovely villas and fine hotels are frequently perched high up, or showing beautifully among the foliage. Roads skirt the margin, generally cut into the almost perpendicular rock or through tunnels. In other places they are supported on walls built up from the water. Telegraph wires extend everywhere along the

margin. Church bells start ringing at 5 a. m. and sound grandly among those glens and defiles. Pictures are occasionally seen on outside walls of dwellings and churches.

The town of Lugano with 6000 people, on west margin of the lake, is capital of Ticino canton. It is a favorite resort of tourists and has many fine hotels. One immense block is six storeys high with probably 400 apartments. One of the former monasteries is now a hotel. Near the town a cone of limestone rises about 3000 feet, with a hotel perched on its summit—a situation perilous as one might dream after a late supper. In early part of the day the Penine Alps (60 miles off) appear like white clouds above the horizon to west. For several miles, one has an excellent view of the lake, resembling a great ditch, the sides steep as an ordinary roof. The scenery to Como (some 20 miles by rail) is quite attractive. The acacia, growing each side the track, is apparently much at home. Its rich green foliage is handsome, but I often wished it in Iceland, as it effectually shuts out the view.

Como, at south extremity of the lake, has about 26,000 people and surrounded by hills clothed with olive and chestnuts. Old parts of the town are narrow and unclean; the suburbs are fine, with grand public buildings. The cathedral (entirely of marble) is 400 years old and among the finest in north Italy. The town hall (700 years old) is also noted. Como was the birth-place of the elder and younger Pliny (A. D. 23 and 62), and also of Volta, the pioneer electrician, born in 1745, died 1826. A lofty statue of him stands near the harbor, and one was unveiled in Pavia in 1878. Lake Como is 30 miles long, about two miles wide, 1900 feet in greatest depth, its south end cleft in two parts, each about 17 miles. It is framed by mountains mostly wooded, some of them rising 8500 feet. Along its shores are about three dozen hamlets, besides many gay villas owned by the aristocracy of Milan and other places. As on the mountain slopes by Lugano, villages are nestling among the forests of walnut and chestnut; occasionally one sees a dozen from the same spot, and however small, each has its church. Some of these are far from habitations, from habitations, from habitations, perched aloft in places seemingly impossible of access. Steamers are thick on the lake and at one time we had three scudding abreast in friendly contest. Towards the north, scenery is wild and barren—gray limestone peaks rising 7000 feet and patches of snow on their summits. Tho the day was hot, the air got piercing cold at once the sun went from sight.

My next stay was at Ballagio, a pleasant village at point where the two arms meet. The ground rises abruptly and the outlook is fine. The sun had disappeared behind the mountains, and looking toward Como a soft purple mist hung over the water, giving the heights beyond a soft dreamy look. Swift steamers arriving and departing, pleasure skiffs rowing hither and thither, the soft measured cadence of evening bells born languidly on the water, while small wavelets caused by a gentle wind made pleasant murmur along the strand. I do not remember a combination of sights and sounds more calculated for pure enjoyment. A small neat Episcopal church stands on a lovely spot behind the town, erected by his father in memory of a young Englishman who died here sometime ago. He lies buried near the church, and the small cemetery is open for English persons who may die in these parts.

On July 31st, I set out by steamer for Lecco, a small town at end of the east arm as Como is on the west. For the first part the scenery was similar to that already described. About half dozen miles from Ballagio the mountains become solid rock, with a faint shade of green on their surface. Along here I counted 14 stacks of brushwood near the shore. The brush is bound in sheaves like grain, made into stacks and carefully thatched. The business appears to be important in this section, but I am unable to state to what use the material is applied. Towards Lecco the mountains became individual cones, with scarcely any connexion with each other. Lecco has about 7500 people, standing by the lake where it is half mile in width. From here I took train for Milan, distance about 30 miles. Mountains at their base terraced for grapes, the upper parts clear limestone. Villages, churches and chapels numerous, acacia growing with dissipated luxuriance each side the track and shutting out the pleasures beyond. I noticed along here a church on the most daring and dangerous mountain spur I had yet witnessed. How the materials were got to such a place I can form no conception. The valley is about a league wide and the country is covered with fruit-trees, corn generally growing among them. The land is gradually becoming level—churches are numerous but no houses in sight. The white summit of Monte Rosa and others appear above the horizon to north-west. When within 20 miles of Milan the country became level as Holland, clothed with vines, figs, peaches, citron, olive and orange.

This is Lombardy and perhaps a few words about it might

be proper. At beginning of our era the Lombards were living in north Germany, and after many vicissitudes, late in the 6th century they crossed the Alps, established themselves between the river Po and the mountains, fixed their capital at Pavia and gave name to that section of country. Late in the 8th century Charlemagne included Lombardy among his dominions and in less than three centuries all trace of language and people disappeared. In later times the country has been successively part of Austria and Italy, since 1860 belonging to the latter. Its population is about 4,000,000 and its yearly production of silk is valued at about \$20,000,000. Milan with 250,000, is one of the richest as well as greatest manufacturing centers in Italy. Till recent times it was surrounded by walls and bastions, now partly levelled they form promenades. The principal streets are wide, well paved and contain handsome buildings; like Brussels, the place is not inaptly called 'little Paris.' A parade ground of 120 acres adjoins the citadel, with a fine arch at the opposite end. The town has extensive barracks and new erections going up were apparently for the use of troops. Its cathedral is however the crowning glory of Milan, next to St. Peter's at Rome the largest and finest in Italy. It is entirely of white marble, Gothic style, area 480x180 feet, central dome 200 feet, surmounted by a tower and spire 350 feet from the pavement. Besides the central, there are 106 turrets and spires, and (it is said) 4500 pinnacles and statues. The roof has very low pitch and covered with great marble slabs an inch or two thick. From the tower a gorgeous view is presented—to north the snow-covered Alps, to south the Apennines. It has been in course of building over 500 years and in use four centuries. Even now the visitor hears the faint click of chisels, but in the dim light it is difficult to locate the mechanics. The nave rises 150 feet from the floor, is of great width, has double aisles to right and left, and supported by 52 massive columns. The church is altogether too dark, while the nave appears too broad for the aisles. The great columns that are in harmony with one, seem entirely out of proportion with the others. The ceiling of marble is painted to represent open work. The high altar is less gorgeous than in buildings of small importance. Several cardinal hats are suspended in one of the aisles. A marble figure represents St. Bartholomew flayed alive with the skin thrown over his shoulder. It is apparently of great age and is an extraordinary work. An ancient porphyry sarcophagus serves as font. The many art treasures contained

in this grand building are seen to poor advantage owing to the dim religious light coming through windows of double-extra stained glass.

St. Ambrogio church, about 800 years old, has many frescoes and is crowded with tombs. The high altar is extremely handsome with golden front and magnificent canopy above it. The pulpit is of marble open work and very fine. A magnificent statue (Carrara marble) of Pius IX., in miter and canonicals, stands near the door. In this church Lombard kings and German emperors were invested with the iron crown, preserved since time of Barbarossa. There are over 30 principal churches in the city, besides scores of less account. In the church of 'plenary indulgence' a painting behind the high altar is intended to represent the Almighty. On a paved square in front is a statue of Alexander Manson—for what distinguished, I failed to discover. In front of the cathedral is a large paved square, flanked on the north by the arcade or gallery of Victor Emmanuel, considered the finest in Europe, built in 1865 at cost of \$1,500,000. It covers several acres, rises to 180 feet, roofed with glass and at night lighted by 2000 gas jets. It forms a delightful promenade, with a succession of brilliant stores and decorated with statues of 24 noted Italians. La Scala theater, built over 100 years ago, has seating capacity for 3000 and is rated among the finest in Europe. A hospital dating back four centuries is said to relieve about 20,000 patients yearly and considered among the largest of that class. The city has museums and picture galleries with art treasure from the brush of Raphael, da Vinci and Titian, considered above value.

I visited the 'new cemetery' a few hours before sunset. It was a holy-day and crowds in gay attire were promenading the city. My route was along the old city walls, now partly levelled. The ditch still contains water; trees grow luxuriously from the wall and contrast agreeably with surrounding conditions. The cemetery gate is extremely pretentious and probably cost a half million. The enclosure is of good size and not kept in such a state of painful neatness as Mount Auburn or Greenwood, while the monuments would be mere pigmies alongside the colossal shafts in Laurel Hill by the Schuylkil. Not a few of the stones are cut to represent the deceased; others have a photo inserted in the marble under glass cover. Many inscriptions showed intensity of feeling—in short were gushing. After a reasonable survey I ascended the terrace. The sky was clear, with two vagrant clouds in the west, perfectly still and of softest amber.

The sun appeared a disc of burnished copper floating in a sea of gold; snow-capped summits of the Pennine range like piled-up clouds beneath. The stillness was almost oppressive—not a bird chirped and the cricket's tiny horn was hanging useless. A band was playing half a mile off and the soft boom of cannon came from greater distance. The moments were diamond and with the pile of a Rothchild what would I pay to have them continue. But they would not pause for love or money. The burnished disc was now skimming the snow-peaks—can nothing be done to retard it? I glance to east and the gloom was advancing—the marbles below appear dimly. Again I look west—the last polished shaft came straight from behind an icy cone and in an instant vanished. But the two small clouds held their place and their color—they are yet enjoying sunlight. I felt entranced and to surroundings unconscious. Suddenly a shouting among the graves disturbed my reverie; another shout equally harsh sounded as echo. What could it mean—as in scripture time were persons bereft of reason holding revels among the tombs? I peered with alarm into the necropolis and saw two men swinging their arms and shouting. My common-sense had by this time got back and whispered—‘they are custodians warning loiterers to leave before closing the portals.’

At 5 a. m. August 3rd, I left for Venice, distance 200 miles due east. The sun was appearing above the Carnic Alps, dimly visible to north-east. A white mist overspread the ground, clinging to earth. The country was dead-level, and largely taken up with such fruit-trees as already mentioned. Hedges are tall, untrimmed and avenues of poplars frequent. The landscape has the appearance of a young forest and tho beautiful enough, one square mile looks like another. Birds are singing in hedges—a race altogether new to me in voice and feather. Hay was being secured, probably two or three crops having preceded. The district (Lombardy) has a complete system of irrigation and a man can soak his fields whenever he wishes—numbers were in that condition. Wide shallow streams are frequent; some river-beds are now dry, tho seemingly important when in full water. Ditches and canals form almost a network, with a row of shade trees each side. Lombardy must have been in ancient times a sea bottom. The soil is drab color, 6 to 8 inches deep, and below that a bed of rounded whitish pebbles about the size and shape of hen eggs. These are dug along the railway and carried off on cars to be used for pavement in cities. The business appears to be extensive, judging from the

many gangs we passed. Tho the country is a forest of fruit and ornamental trees, wood for any use is wanting. Granite is split like fence rails, from three to four inches square, any length up to 14 feet and used for gate posts and arbors on which grape-vine are dressed. Railway sleepers, after being subjected to some process that makes them entirely black, are covered with an iron mantle. Oxen are used for plowing and I imagined myself quite a distance east on observing one-handed plows, while the driver carried a goad in the other. Threshing-floors are outside, made smooth and hard as pavements. Tall towers are often seen, no doubt belonging to churches and these to villages or towns. At Brescia (60 miles east of Milan) we are close to the mountains, and for some distance the country is undulating, soil poor and vegetation withered. Twenty miles from Brescia, lake Garda is reached, continuing to left for a dozen miles—its shores lined with towns, villages and hamlets. The country again becomes flat and we pass a station inscribed *Roma Campagna*. Verona, 106 miles east of Milan, is surrounded by a number of circular forts. About 11 we pass a gang of laborers taking their siesta under shade of trees. The thunder of cars disturbed them not. The country is again perfectly level, presenting no great variety of outlook. At length we reach the Adriatic; the water looked shoal and the iron-horse swerved neither to right nor left, but dashed ahead. After $2\frac{1}{3}$ miles of causeway we enter a city, came to a stand and presto—in Venice. A hotel bummer was soon on my track, arrangements were made for lodgings, but instead of a cab I entered a gondola. After proceeding about a mile and turning a dozen sharp angles, we arrived at the hotel fronting on the grand canal and opposite St. Maria Salute. The proprietor graciously stands at the door and offers assistance in landing.

I had left Milan before breakfast time and neglected to lay up stores for the passage. It was now 4 p. m. and for some 20 hours I'd been fasting; but carnal wants were laid aside and I could hardly refrain from shouting—'Where is St. Mark! where is the ducal palace, where is the bridge of sighs, where, O where's the Rialto! Am I really in Venice, or is this a vision of night to be broke by the first dog that howls, or the first cat that screams fire!' Hunger that clawed fiercely at my inward parts 8 hours ago now was forgotten—I felt like a boy starting out fishing. St. Mark was not far away and I found it without trouble—spending there an hour or two, gazing about with others. In the evening from a balcony I watched the sable

gondolas gliding serenely along the water—there was no wind and the moon was in its best condition. The canal is lined here with hotels and many were, like myself, out watching. The lute, guitar and mandolin of former times have passed away with the golden age of Venice. The canal is silent now except the soft splash of a gondolier's paddle. Midnight is the usual time for coming ashore, but not a few remain much later. As was proper and meet, my first night here was sleepless owing to heat and the incessant demands of mosquitoes. The usual burnt offering of paper appeased them not, as they resumed their bloody work with greater vigor. Next day I demanded a formal interview with mine host, explained the grievance, was remanded to another room where under a canopy of net I reposed in peace—no hungry mosquito daring to disturb me with twanging horn or pearly tooth.

Few places have a stranger history than Venice and it may not be amiss to give here a brief outline. In 452, about the time Saxons invaded Britain, Attila with unnumbered hordes was destroying life and property in Europe. To escape the carnage, a number of persons took refuge on marshy islands in the north-west corner of the Adriatic. Few places could offer less favorable conditions, but then (as now) people fought hard for existence. Salt from sea water was the first commodity sold, the business gradually increasing to respectability of commerce. Their home being in a sense on the waves, they developed into a maritime people with success that now reads like fiction. Their seamen were the most skilful and brave, their flags were seen on all waters. Venice soon rose to the head in almost everything—in commerce, in art, in mechanics. To say that a thing came from Venice was to declare it the latest improvement, the best of its kind. What Tyre had been a thousand years B. C., Venice became (and more) two thousand later. A city had risen on those mud isles, in splendor surpassing the dreams of Aladdin. A description of them to-day would read like a myth, did not enough remain to show their former attractions. But with success came a desire for conquest. In 737 they captured Ravenna, a city about 100 miles distant. In 809 they repulsed the fleet of Pippin, a Frankish prince, and 20 years later remains of St. Mark were taken from infidels in Egypt and a building for them erected. In 1177 Pope Alexander rewarded Venice for service to the Roman see with a ring for espousal to the Adriatic. This pageant was performed on Ascension day with surprising pomp: the doge proceeded in a

state gallery (*bucantaur*) 100 feet long, decked in the most gorgeous manner, accompanied by great men in gondolas and feluccas. When the brilliant procession arrived at a channel the doge dropped into it a ring, with the remark—'we wed thee with this ring in token of our true and perfect sovereignty.'

Owing to its supremacy at sea the crusading period gave the republic a lift in its career of conquest. In 1201 Venice undertook to land in Palestine 30,000 troops and half as many horses, for which service it was to receive 85,000 marks, probably equal to a quarter million dollars. The account was not settled and the doge (Dandolo) induced his people to attack Zara, a town of Dalmatia in rebellion against Venice. The place was captured and the Venetians advanced towards Constantinople under pretence of deposing a usurper. The brave Dandolo, over 90 years and blind, led the attack by sea and was first to spring ashore at end of the contest. The Byzantine empire was now divided between the Venetians and Latins; Dandolo was offered the crown but accepted instead the title—'Rumanian despot.' He died four years later, his illustrious family giving four doges to the republic. These successes stirred the jealousy of Genoa and 130 years of strife ensued between the two cities. By the enterprise of Marco Polo and other daring sons, successes were achieved abroad; but the government had become corrupt, all being excluded from the grand council except peers of the 'golden book.' The republic was for many years at war with varied success, till in 1498 the Portuguese discovered the cape route to India, which gave a death blow to declining Venice. Skipping over centuries of decay—the republic begun with Attila was ended by Napoleon who in 1797 entered Venice, never trodden by hostile foot during its 1300 years of existence. In the same year (1797) it was ceded to Austria, annexed to Italy in 1805, restored to Austria 9 years later. The Manin revolt (in 1847-8) cost that empire about 20,000 lives and its reverses in a campaign against Prussia (1866) led to the city and territory of Venice being incorporated with Italy—Victor Emmanuel making his entry on November 7th, 1866.

At first the government of Venice was by tribunes or elective chiefs, the form changed in 697 to a republic, the chief magistrate being known as 'doge'—from Latin dux, a leader; whence our English word duke. At this time the doge was actual sovereign for life, which was not always allowed to end naturally. About half the number were either slain by judicial means or by an assassin, while not a few were blinded and banished. In

1172 the doge's power was reduced and in 1310 the office became a mere figment. The last doge was elected in 1788, the office ceasing with fall of the republic in 1797, as stated. Venice (Italian, Venezia) is about seven miles in circuit and is cut in two by the grand canal, winding in double curve through the city. It is from 100 to 200 feet wide, spanned by the Rialto and two iron bridges. Besides the main part, two isles over a mile away contain an important fraction. One has a large cathedral besides glass-works; the other has a large church and of course dwellings. Venice does not entirely depend on canals, having narrow lanes three to six feet wide, named *calli*. One acquainted with the place can traverse it from end to end without setting foot into a gondola; yet these are the readiest means, the horse-cars of Venice. Persons meeting in these *calli* must turn sideways to avoid collision; and did one strut along with hands in pockets the sleeves of his coat would soon require patching. Gondolas are about 16 feet long, three wide at center; several feet of each end are high out of water, the prow (of polished metal) rises jauntily some four feet. The craft is decked except six feet in the middle over which is a low awning for shelter. Except the metal prow the whole is glossy black like an old-fashioned coffin. They are calculated to carry two besides the propeller, who stands at his work. They have regular charges, but like cabmen will cheat when opportunity offers. When nearing a corner the driver gives a dismal howl to warn those coming in contrary direction. On a moon night after a hot day and with a favorite companion the gondola takes first place for enjoyment.

The population of Venice was at one time about 100,000—now but little above half these figures. The city has neither hearse, horse nor carriage. The tide ordinarily rises two to three feet, tho on rare occasions five is reached. At high tide the water is level with the door and one can step into or out of a gondola easy as from one room to another. During heat of the day young people spend much time in the water which is almost too warm for comfort. One frequently sees a mother sitting on a doorstep holding three or four cords or lines as if fishing, the other ends tied to waist or neck of as many boys or girls who are learning to swim. In this way they appear as much at home on sea as ottars. In spite of large sums spent on dredging, the main channels are gradually filling with matter brought by the Po and other rivers; and tho sitting on the waves, Venice suffers for want of water. Its supply comes from

6780 cisterns and 17 wells, 450 feet in depth; but the water in both is 'naughty.' Venice was long ago famous for its glass, as we read that in 674 it supplied windows for Wearmouth abbey and over 350 years ago it sent as present to the French king a mirror about a foot square, the glass now embedded in the stucco walls of Fontainebleau palace. At present Venetian glass factories turn out little except beads, ornaments and trinkets. The dock-yard with four ill-shaped marble lions (brought from the Pireus in 1687) guarding its portals, was founded in 1104 and in its day was unrivalled. Covering 90 acres, eight centuries ago it usually contained 40,000 sailors and 16,000 ship-wrights—for many years reduced to its former shadow. The glory and riches of old Venice reads like a dream—almost incredible. Brick was the material for common buildings, but the rarest stone for others. Along the grand canal were few except noted structures. From 1800 to 1880, it is said that 88 churches and over 200 palaces were demolished; of old palaces 63 are used as hotels, restaurants and public offices. One of its six theaters had a capacity of 3000 persons.

Of its 40 squares, St. Mark's alone deserves the title—bounded on three sides by arcaded palaces and once flagged with marble. In its east end is the cathedral, over 800 years old, a five-domed Romanesque temple, with some 500 marble columns, 50 arches, and over an acre of mosaic. Marble slabs from eastern harems panel its walls, alabaster columns from St. Sophia and marble columns from Solomon's temple adorn the interior. Over its main portal stand four horses of gilt bronze that once surmounted the arches of Nero and Trajan at Rome, passed to Constantinople in the fourth century, brought to Venice in 1204, carried off by Napoleon in 1797 and restored in 1815. I avoid the sin of stating that with the space at command I can't do it justice; for of all buildings it appears most unmanageable in the way of printed description. It is not remarkably large nor unduly exalted—its chief attraction being the wealth of rare marble and expanse of mosaic. About the altar and choir, marbles of some dozen shades and colors are used, while onyx and jasper are among the decorations. It is impossible to form a just idea of its original splendor from present appearance, obscured by centuries of incense smoke. The mosaic consists of figures from scripture, beginning with the creation and following through to the apocalypse. The explanations are in Latin, with no break for words, and altogether would make a good-size volume. Behind the altar a surface of about 50 square feet is studded with jewels

set in gold, the aggregate value of which must be enormous. I omit the useless work of attempting to describe the west facade, its areas of mosaic, its porphyry pillars, its wonders of sculpture, its costly marble, the turrets, pinnacles and figures. The bell-tower is about 50 yards in front, 40 feet square at bottom, 320 feet high, with golden angel for vane on the apex.

The ducal palace stands to south of St. Mark's, founded over a thousand years ago, five times destroyed, but rising with increased splendor after each fire. The style is moresque, sculptured fronts, massive collonades, rooms ceiled with priceless display of Venetian art. The scala dei giganti where doges were crowned; the scala d'oro trodden by none except peers of the 'golden book.' The council room is magnificent in size and appointments; painted ceiling, heavy gilt cornice under which extend as frieze pictures of all the doges, 88 in number. A dais extends along the east end and on the wall hangs Tintoretto's 'paradise,' 84x34 feet, containing over 100 figures and among the largest oil paintings in the world. The throne room is supremely gorgeous; the ceiling massive and abundantly gilt, the walls covered by rare works of Venetian art. A hall in which scions of noble houses received education is very attractive. One of the doors is said to be from St. Sophia. A number of less important rooms are shown, several with marble chimney fronts, highly sculptured. In the corridors are numerous marble busts of doges, generals and admirals, among them Marco Polo and the two Cabots. The state prison stands some dozen feet to east of the palace, a canal passing between. About 20 feet above, a covered (or rather tubular) passage of stone connects the buildings, facetiously called 'the bridge of sighs,' probably because prisoners passing over it to receive sentence and returning with words of doom ringing in their ears were not supposed to be in good spirits. Tho of small appearance, a sentimental name and kindred associations have placed it among the lions of Venice. On the esplanade to front of the palace stand two granite columns perhaps 60 feet high, said to have come from Syria in 1176, one of them crowned with the winged lion of St. Mark. Rialto bridge spanning the grand canal is an important institution, a general center of business, pleasure and gossip. As in the time of William, the greeting is to-day—'What's new on the Rialto?' It is of one arch, quite low, with steps ascending each side. A row of a dozen small shops extend along each side which must bring high rent, judging by the crowded state of neighboring places. As all cannot have stands on the bridge,

they strive to get near it as possible. With our wide streets, large stores and plenty of light we cannot imagine the dark holes and corners in which mechanics work and merchants sell—places no larger than generous packing-boxes and with only dim twilight at high noon. Even along streets not two yards wide, shoemakers are seen working on the pavement before their doors, for the sake of more room and better light. Money there seems to have several times as much value as with us: in other words things are cheaper—fruits in general less than one-sixth of the price here. Photographs 8x9 inches, of buildings and scenery, are sold at less than one dollar per dozen.

Of its 99 churches about a score are widely noted. A few of these I will mention. The Jesuit church is superb beyond description. The walls are entirely covered (or shall I say veneered) with black polished marble, inlaid with figures in white so as to represent drapery. To my untutored eye and at a little distance it appeared exactly like black or blue cotton with small white figures. The ceiling is wonderfully fine, particularly above the choir. The altar is extremely imposing, while ten alabaster columns support a gorgeous canopy above it. Pillars along the nave are in part covered with red damask, the rest with inlaid marble to match the walls. The pulpit is large and magnificent, of black polished marble, inlaid with white. To one side, what appears to be a large, heavy curtain thrown aside in great folds and masses, is also inlaid marble, so cunningly got up as to deceive the very elect. Much fine sculpture and carving are seen through the church. The tessellated floors of black and white marble are magnificent. The number of beggars about the door is in striking contrast with the splendor and glory within. The church of Zanipolo was a burying-place of the doges and is principally noted by the stupendous memorials to these men. One is indeed reluctant to give the size and magnificence of those vast structures, the cost of which would almost impoverish a city. Think of a monument 80 feet high and about half as wide, no more remarkable for size than for grand, elaborate finish. An area of yellow marble (to represent drapery), gold-tinged and in extent 15x30 feet, held up by colossal figures of angels; two equestrian statues and 21 human figures, besides many reliefs—a dozen classic pillars of black marble, 24 feet high and 18 inches thick, forming a support to this vast structure. Several other monuments are nearly as imposing, with over a dozen from 30 to 40 feet high, besides a great number of tombs and tablets. One of the side chapels is

extremely elegant and expensive. Church of the Scalzi is a marvel of costly stone from Norway, Greece, the Pyrenees, the Alps and Africa, in columns, statues, doors, altars and monuments. The altar is an immense affair, with tortuous pillars of rare beauty. The eight side-chapels are a wonder of inlaid work in jasper and other stone. One almost concludes the object was to show every kind, color and variety of marble used in building or decoration. Church of St. Sebastiano is noted for paintings by Paul Veronese and for containing his tomb. The high altar is extremely gorgeous. Church of the Frari contains the tomb of Canova (the noted sculptor) designed by himself. It is the side of a marble pyramid about 40 feet high with seven life-size figures and the winged lion of St. Mark. There is also a large and elegant monument to Titian, about 50 feet high, surmounted by a winged lion rampant. Not far off is a monument to the Virgin, perhaps 70 feet high, the central figure being a large and splendidly gilt image under a gay canopy. Six Corinthian columns and 14 human figures form part of this structure. In another part, a smaller monument represents the crucifixion, the disciples and women standing about. The whole is supported on black marble pillars. Next to Canova, stands a monument perhaps 80 feet high, an archbishop or pope being the central figure, together with 18 or 20 subsidiary ones. There are in the church many others but little inferior in size and splendor; also many smaller ones, tombs and tablets. A fine marble statue of Nicolo Tomaseo stands near the door, who along with Manin raised in (1847) the standard of Italian independence.

I visited over a dozen churches, all having some special attractions, but it is useless to weary the reader with too much of one subject. They are of various sizes from 150 to 300 feet long and otherwise in proportion; their ages range from 300 to 700 years. The appearance of many is marred by having the nave pillars joined together near the top with beams of wood or rods of iron—the object being no doubt security. Not a few contain pictures by Titian, Tintoretto, Bellini and Veronese; but I am no critic in art and will neither praise nor traduce on the opinion of others. August 6th I spent at the art gallery without being extremely delighted. Portraits of 80 Venitian artists of note form a kind of frieze around the principal room. From viewing their works they appear to have copied each other in shade and expression. Nearly all the pictures are of religious subjects, ideals of fancy—the crucifixion, the descent, the ascent, last supper, Virgin and child, masses of human-like forms supposed to

represent angels, tangled together, tumbling and squirming in mid air, apparently muscular as giants, monsters in avoirdupois if appearance be a criterion of weight. Pictures of Christ are nearly all disappointing—most of them looking either vicious or silly. The Virgin is often portrayed with extreme sweetness; but I never saw a picture of Christ that entirely pleased me. In most instances instead of according to the artist a premium of fame and fortune, I would have him banished if not beheaded. Then of all intelligent entities artists appear the most hopelessly wanting in general knowledge. If the artist be Italian or Flemish, Christ and his disciples appear as their countrymen. In pictures of the last supper, Christ and apostles are seen sitting straight up at an ordinary table, and before each a decanter and tumbler, a roll of bread (such as is common in the artist's country), an apple or pear—corresponding badly with the reclining position, the breaking of bread and passing the cup. When Christ is represented lying in a tomb, soldiers are sleeping at the entrance, tho the scripture distinctly states they didn't sleep. Even the moon when represented in early night, is nearly always turned wrong. But like poets, artists may have special licence to turn things up side down to suit their fancy.

After spending nearly two weeks at Venice I was about starting to south Italy, but extremely hot weather upset my arrangements, and on August 12th I headed back to Milan. Willows are abundant along first part of the route—two or three dozen shoots (15 to 20 feet long, straight and smooth, from size of a cane to that of fence-poles) growing from each stump. Most of the corn had its leaves and top taken away, the ears standing as brown stups. I was unable to learn the object of this treatment. All flag stations, but one, along those 200 miles were attended by women. Regular stations have blackboards in front on which are marked the day of week and month, together with time for arrival and departure of trains. An individual house is rarely seen, the people all living in towns and hamlets. Padua, on a fine plain 21 miles from Venice, is the first town of any note. It is surrounded by massive fortifications about six miles in circuit; is an old place and under Roman emperors only yielded to the 'eternal city.' Its university was founded 600 years ago and its chief promenade is adorned with 74 statues of distinguished men who had studied within the walls. Among these are Petrarch, Tasso, Ariosto, Savonarola, Sobieski and Gallileo. In 1874 a monument was erected to Petrarch on the 500th anniversary of his death. Livy the historian started life

here B. C. 59. The Pallaza Ragione of the 11th century has a great hall 273x90 feet and 78 high, unsupported by prop or pillar. It has few equals. The place has several noted churches, besides the oldest botanic garden in Europe. The population is about 45,000.

My next stay was at Verona, 72 miles from Venice, at foot of the Tyrolese Alps, on both sides of the Adige, crossed here by five bridges. The town is partly surrounded by ramparts, besides a number of forts on the adjoining hills. The Roman amphitheater built under Dioclesian in 284 is the chief lion. It is over a quarter mile round the outside, the arena 248x147 feet and 45 tiers of seats, calculated to hold 20,000 people. The outside range of arches (106 feet high) were, except a small part, thrown down by an earthquake 700 years ago. A massive gateway erected under Gallienus in 265, spans one of the busiest streets. Porta Leoni is another Roman arch erected in the time of Vespasian. Gothic tombs of the five Scaligers who flourished some 500 years ago and who were for over a century presidents of the republic, are among the notable objects. Some of them are quite large and show a wonderful amount of sculpture. Churches in Verona are mostly Gothic; that of S. Zenone is Romanesque and of fine proportions. The bronze door and campanile dating from the 11th century are curiosities. At time of my visit the church was ablaze with gold-fringed hangings for some extraordinary fete on the morrow. I never witnessed such a brilliant display of bunting. The drapery about the high altar was of untold splendor. Several other churches repay a visit. In S. Borodino the clouded marble (in one of the side altars) is made to represent flowers and human figures. Among noted monuments is a fine statue of Victor Emmanuel, lately erected. In September 17th, 1882, the river overflowed the town to a depth of from three to 14 feet, since which a protecting wall of granite has been constructed along the stream. The work is among the finest masonry I ever witnessed. The Adige is second largest river in Italy 250 miles long from its birth in the Rhaetian Alps. It is about 200 yards wide and very rapid. Along its course it turns over 200 flour and rice mills. The water-wheels are large and are turned by force of the current. Verona is an interesting place; its streets are narrow but clean and well paved. It is crowded with soldiers giving it a gay, lively appearance.

I left for Brecia about noon—hot day and fine scenery, to north-east terraced hills, rising to mountains a few miles off; to

south, a level plain with fruit-trees and corn sharing the same pasture. About 2 p. m. a violent thunderstorm came howling from the north—the wind rioting among the trees as if intending to twist off their heads. Rain poured and hail followed threatening to riddle the car windows like goose shot. It lasted half an hour, giving the landscape a white surface. The train stood stationary during the shower. Hills to north soon got a mantle of white, looking blue through the mist. Lake Gard. a short distance to right was lashed to fury as in days of the Mantuan poet. The afternoon was dark, cold and chilly with occasional rain. Mountains to north resemble gigantic ocean billows turned to stone. As we advance they become clothed with vegetation, farther on, dotted with handsome villas among trees. Brescia is on a hillside, facing south, the summit crowned with a fort. To the horizon southwards the country is level as the ocean, an unbroken forest of fruit-trees here and there, a tall church spire piercing the azure and showing the site of town or village. To north, hills and mountains with hamlets at base; farther up, vineyards, with limestone crags for apex finish. Vegetation has now a withered appearance, but in May and June the outlook must be gorgeous. The town is rather clean and has some lengthy arcades. It has several handsome churches, and the city hall of white marble, erected over 300 years ago, is a magnificent building, indicating the opulence of Brescia at that time. A Roman temple built in reign of Vespasian is now a museum, the most noted object being a bronze statue of victory excavated in 1826. A cemetery about a mile from town is considered among the most interesting in Italy. The tombs of saints must possess some virtue, if piles of crutches be a criterion. Brescia was a place of note before the Punic wars. In 1512 it was taken by the French who (it is said) butchered 40,000 of the people. The present population is given at 38,000.

Next day I returned to Milan and on the 15th I went to Pavia, 20 miles off. Streams and canals are numerous, a row of trees each side. Fine avenues frequent, the country largely under corn and pasture; great herds of cattle (yellow or white) in splendid condition. They are always accompanied by a herd or keeper. Threshing-floors in fields, level, hard and smooth as a pavement. Pavia on Ticino river near where it enters the Po, was till recently surrounded by walls with 100 towers. A handsome arch is passed between the railway station and city; and a covered bridge 230 yards long (built in 1350) connects Pavia with a suburb. The cathedral is 400 years old and still

unfinished. It contains a superb monument in white marble to St. Augustine. There are several other churches of note, one dating from the 11th century. Pavia was capital of Lombardy from 13 to 11 centuries ago; its university is rated the oldest in Europe. Population of the city, about 30,000. Five miles off is the famous Carthusian monastery established 500 years ago by Visconti duke of Milan, as expiatory offering for killing his uncle. The church is of great magnificence, with 12 chapels, fine monuments, splendid altar and a very tall tapering spire. It is entirely of white marble and lavishly set off with sculpture.

August 16th, left for Turin 100 miles to west. The country is perfectly level; beautiful avenues frequent; oxen plowing—the implement with one handle, the attendant wielding a goad in his left. Magenta, a score miles west of Milan, has about 6000 people. Here in June 4th, 1859, Italians and French defeated the Austrians and forced them to give up Lombardy. A fine monument (erected by Napoleon III.) commemorates the battle. Novara (with 30,000) is five miles to west, strongly fortified, has ruins of old castle, an 11th century cathedral, a beautiful theater, monuments to Cavour and Alberto. Here the Austrians defeated the Sardinians in 1849. For miles the country along here is taken up with rice—nothing else seen. It was being cut with scythe and sickle. Ditches everywhere full of water and the ground flooded one or two inches. Next we come to corn and nothing else, extending for miles without break. A great number of streams were passed since leaving Milan, all running south-east and tributaries of the Po. I never saw a country so evenly watered. Some river beds were dry and others low in funds. Towns are frequent and tall church spires are seen every few minutes indicating others not in sight.

Turin (Italian Torino) has 230,000 people, is about 100 miles west of Milan, stands on the river Po, crossed here by three stone bridges and an iron suspension. A fine granite embankment extends along the river, here 250 yards wide. The city stands on a plain at foot of the Cottian Alps, and was capital of Italy from 1859-65. It is handsome and clean, the streets running at right angles as in Charlottetown, the newer parts indeed compare favorably with any place. A parade-ground is at edge of the city and a lovely park along the river to west. The railway station is large, massive and apparently built regardless of cost. The city is well supplied with public buildings, and few places are so overgrown with monuments and statues. The old palace has a plain brick exterior but handsome inside. One of

the wings is a museum for arms and armor, the collection tho-
small being in excellent condition. A fowling-piece on revolver
principle, wheel-lock, 12 chambers and centuries old, is among
the curios. Polazo Madama is a castellated mediæval structure
of some interest. The cathedral is not large but rich and showy;
the altar fixings are all of silver and the organ-loft is brilliant as
gilt and gold can make it. The instrument is set off with mas-
sive gilt ornaments and covered with gold cloth. I visited
several other churches, all more or less handsome—also an
Episcopal church and Jewish synagogue. The Superga is a
large, imposing temple on top of a hill 2250 feet high, right
across the river, with seminary for priests adjoining. It is a
conspicuous object, seen from afar and reached by a mountain
railway. A convent stands on a lower height. Hills across the
river are everywhere clad with trees, residences of the great and
rich nestling among them. The town is supplied with street-
cars, some lines driven by steam. Turin has extensive trade
and is a brisk manufacturing center, principally silk. I see it
stated that one match factory employs 600 hands and turns out
daily over 10,000,000. I counted 24 women washing clothes in
the river, besides another detachment farther up stream. No
labor-saving appliance here, not even the corrugated zinc. In the
station, all posters, notices and time-tables had each a govern-
ment stamp. About 30 miles west of Turin are the Vaudois
valleys, inhabited by an interesting people known as Waldenses.
For centuries they suffered terrible persecutions till in 1848 the
king of Sardinia gave them equal rights with his other subjects.
They number about 26,000, making some 40 congregations.

Now I'm off for Geneva about 150 miles, direction north by
west. For an hour or two there is no striking scenery, tho the
landscape is interesting and pleasant. About 9 a. m. we arrive
at mountains—outskirts of the Graian Alps. Chapels and images
now appear, and ruined castles perched on mountain spurs recall
the Vaterland. Vine culture on lower heights; towns, villages
and hamlets thick along the valley. Snow-peaks close at hand
—houses roofed with stones as in Ticino canton, some of them
four storeys and quite handsome. The valley has now almost
narrowed to a gorge with a glacier stream wrestling and strug-
gling among its wreckage. Swiss style of houses begin—mount-
ain torrents, wild gorges, high bridges, tunnels. Base of mount-
ains terraced for barley and small patches cleared among rocks.
Women cut the meagre harvest with sickles and carry it home
on their backs in sheets to prevent shrinkage. Village and ham-

lets are fairly crowding each other, but how the people live is a problem—no visible means except those tiny spots of barley, supplemented by chestnuts. The scenery has been quite fine for some distance, and when at best we rush into the darkness of Mount Cenis tunnel. This tube is over eight miles long and was finished in 1870 after 12 years of picking.

* * *

In 23 minutes we emerge into light of Savoie, now part of the French republic. On entering the tunnel we bade farewell to Italy with its corn and its wine, its flowers and fruits, its gorgeous fanes, the soft hue of its mountains, the smooth tongue of its people. But I am brought to halt by the douane inquiring what treasures I brought from the land of rich sunsets, whereupon my entire possessions (worth perhaps a dollar fifty) are spread out at his feet. The wealth failed to dazzle him, and finding nothing rare, he went round to the next. The station is large and imposing, with but little else. The heat was scorching, and while almost fried to a crisp, one was provoked to see the cool garments of winter spread in patches above. Harvest in progress and much the same as just mentioned—bits of barley on terraces, women cutting and carrying home the garnered treasures. The valley is wild and scenery rather attractive—mountains topped with limestone of various hue; cascades and torrents dashing madly against rocks and boulders; churches and chapels on giddy heights; a large gilded cross on mountain peak glittering in the sunshine. This is Savoie, separated from Italy by the Graian and Penine Alps in which are Mount Blanc, great St. Bernard, Matterhorn and Monte Rosa. The district is entirely Swiss in character and swarming with people who are rated industrious and honest.

We are now at Aix-les-Bains, a small, high-toned watering-place of 2000 people, on a mountain slope, a lake below in a deep valley. Its sulphur springs were noted in Roman times and a small triumphal arch built in the 3rd or 4th century is yet standing. In mornings people are out in crowds to imbibe the water; and invalids (looking like heaps of clothes) are carried on handbarrows by stout, bare-footed porters. After parboiling and rubbing, they are brought back to their lodgings. Queen Victoria used to visit here till another place won her affections. Aix is quite attractive with palace hotels and charges calculated to make one's hair stand on end unless he is bald-headed. The public garden is small but of extreme beauty—great banks of flowers, artificial lake with island and band-stand, gravelled

walks and fountains. Left for Geneva at noon, the track for some distance skirting the lake; then mountains each side, lower parts dressed with grape, and limestone crags on summit. The track now crosses a wide alluvial plain, all meadow and apparently never tilled, producing a short thick variety of grass. The Sunday afternoon, the place swarmed with men and women, cutting, gathering and hauling—probably two dozen ox-teams and thrice as many people. Then follow uneven country in bluffs and ramparts—tunnels, deep cuttings, gorges spanned by high bridges. Farther on, peasants gathering and hauling. From Turin to Mount Cenis, 20 tunnels; thence to Geneva, 20 tunnels.

Geneva, the farthest west and smallest canton in Switzerland, is almost entirely surrounded by France and would little more than form a square of ten miles. Its population is 100,000 about equal numbers Protestant and Catholic; French is entirely spoken and nearly 40 per cent of the land is used for grape culture. Geneva town is at west of the lake where the Rhone leaves with speed of a mill-race. The river is 160 yards wide and crossed by six bridges. The town makes good appearance from the water, and for some distance each side the lake, slopes are studded with handsome residences and villas. There is no lack of hotels, many of them large and pretentious. The house in which Calvin lived from 1543-64 is in good repair and easily discovered. The great reformer forbade to erect a monument over his grave, so that his resting-place is unknown. The house where Rousseau was born in 1711 and died 1778 is in good condition. On a small pleasant square called 'the English garden,' stands the national monument, a bronze group on a lofty pedestal, to commemorate the union (in 1814) of Geneva with the Swiss confederacy. There is also a bronze fountain, seemingly cast from the same pattern as Brewer fountain on Boston common. The cathedral is a grand Romanesque fane, 800 years old but fixed up later. It has fine stained glass and several tombs, the most noted being that of Henry de Rohan, leader of the Protestants under Louis XIII., till slain in 1638; also his statue in plaster to replace that destroyed in 1798. A fine carved pulpit contains a chair used by Calvin. There is an excellent organ, but no decorations of any kind. A handsome English church is located on a pleasant spot near the lake. A Russian church somewhat outside the city is a showy building with five gilt cupolas and spires. Inside it is a marvel of magnificence. A new theater somewhat resembling the grand opera in Paris is a delightful building—the material, freestone of soft greenish hue.

Several other new erections are of similar stone. The city hall is a grim old structure, remarkable in having an inclined plane instead of steps, so that councillors of old could ascend without leaving their saddles. The town has botanic garden, museum, conservatory of music and altogether is an interesting place. Here a peace congress met in 1867 and a commission to settle the Alabama claims in 1871-2. A rich gentleman near the town has about a dozen rooms of his mansion taken up with rare curious things, the whole of which he throws open to the public on certain afternoons each week. The building (really a palace) is high above the lake and commands a delightful prospect. The atrium has 18 columns of costly marble of different variety; above the gallery is an equal number of rare yellow marble, no two alike in sculpture. Two vases in the hall are 8 feet high and others nearly as large. A fountain in front has always a rainbow aloft during sunshine.

Lake Geneva or Lemman is over 50 miles from east to west, 9 in greatest breadth, over 1000 feet in greatest depth and is never frozen. Numerous steamers and sailing craft ply on its waters, the largest 160 tons. The lake is said to hold 21 kinds of fish, and the water gets credit for being deep blue, but to me it appeared the same shade as others. To north and east it has the canton de Vaud; to south, the department of high Savoie. Besides Geneva and Lausanne, some three dozen towns and hamlets are along its shores; higher up the slopes are often wooded, with charming villas peeping out from the forest. At a small place near the shore, Necker (finance minister of Louis XVI.) had a country seat where he spent his last days. His daughter (the celebrated Madame de Stael) died here in 1817 and her desk may be seen at the mansion.

On August 21st, I took shipping for Lausanne, over 30 miles from Geneva, on face of a hill, looking superbly from the water. The town with 30,000 people is the largest in Vaud and about a mile up from the landing. The site is uneven, requiring flights of stair between different levels, a tunnel in one place, a high bridge in another. From a market-place below, 164 stone steps bring to the cathedral, an imposing Gothic structure 350x150 feet, of gray sandstone, with tapering spire. Above the cupola is a clock tower covered with iron. The nave is flanked by 20 great pillars of different pattern; one of them partly cut away to make room for the pulpit, lower part of which is stone, the upper wood. Another pillar is equally marred to make place for a high-backed chair, the occupant no doubt considered a

greater support than the pillar. The church was erected over 600 years ago and consecrated with great pomp by Gregory X. The choir has tombs of several reformers. In 1536 a dispute took place here between Calvin, Farel and Viret, resulting in the episcopal see being moved to Feiburg; and what was till then the bishop's palace is now used as prison and court-room. East of Lausanne for 10 or 12 miles, slopes from the lake are terraced and vine-clad, village and hamlets frequent. Farther on the land rises steeply almost to mountains, sides are thickly wooded, hotels and villas in choice situations. A cogged railway ascends to a mountain terrace a thousand feet above. Along the water are two beautiful towns (Vevey and Montreux) besides a number of smaller places—mostly fine hotels with every convenience one gets in Paris. Indeed for about half dozen miles along here it would be trifling exaggeration to say that hotels were crowding each other. It is a great focus for tourists and one of the most delightful spots in that country of wonders. Steamers are dashing back and forth, crowded with people; and at night the sheen of electric lights dances cheerfully on the lake. A little farther east is Chillon, a kind of feudal castle of great strength, erected 650 years ago by a count of Savoie as bulwark for his possessions. It stands on a rock 60 feet from shore, connected by a drawbridge and overhung by a precipitous mountain to north. But it is best known as state prison and the traveller views it with interest as tangible relic of old-time tyranny—a kind of private inquisition. The reception room is ceiled with great oak panels, rude pictures along the wall, a chimney 10 or 12 feet wide with fire-dogs to match; the courtroom in which persons received sentence; a small chapel with carved stalls and altar. The dungeon is a long, arched vault, partly cut in the solid rock, in two aisles separated by a row of seven massive pillars. Here may be seen the slanting rock on which prisoners slept (if they could) the night before execution, the beam from which they were hanged and the pillar of torture. Bonnivard (prior of St. Victor, Geneva) was confined for six years (1530 to 36) by the duke of Savoie for entertaining liberal views in respect to religion and politics. The pillars to which he was fastened, staple, chain and iron collar may be seen; also the stone floor hollowed by his footsteps. In the pillar are cut the names of Byron, Victor Hugo, Dryden, Peel, Keats, George Eliot and others. No wonder Bonnivard rejoiced on hearing the Bernese forces by land and the Genevan galleys by water coming to set him free. Since coming into possession of Switzerland the place

has been a depot for military stores and prison for political offenders. At time of visiting I was told that ten were immured.

Villeneuve in spite of its name is an old place at end of the lake, receiving little attention from tourists. The valley for a dozen miles up is a league broad, perfectly level, carefully tilled and densely peopled—judging by the frequency of town and village. It is enclosed by high rock ramparts and distant snow-peaks are usually in sight. At Martigny (about 20 miles up) the valley turns sharply north-east and continues over a mile wide for 10 or 12 leagues. The scenery is not remarkable tho not tame. The strangest feature I noticed were scores of conical hills 50 to 150 feet high, a good deal like hay-stacks, tho not so steep or regular in outline. They have no vegetation except an occasional pine tree, while a few had ruins of castles. The railway tunnelled through one and cut deeply into another, showing the material to be gray sand and pebbles. The valley gets wilder as we advance and is much torn and overwhelmed by landslides. Churches are frequent, often perched on dangerous heights, their costly appearance contrasting with the mean habitations. This is Valais canton and on the whole bears the impress of poverty and want. Women carry manure in creels and are at other kinds of slavish work—mostly carrying a load of something. Their yellow, withered appearance indicates want and hard usage. Goitre and cretinism, which seem to result from poor lodgings and living, are frequent in this section. Zion is the most important center, has about 5000 people, and is capital of Valais. It is extremely picturesque and has some good buildings. A pointed hill over 2000 feet has ruins of a castle; another of equal height is crowned with a seminary for priests. There is also an imposing cathedral. I don't remember seeing clergymen so numerous as in this valley, and from their well-kept appearance they seem to get the corn and wine, the cream and berries. At Brieg, about 60 miles from Martigny, the railway terminates. This is a dashing little town among fine scenes, near the Simplon pass into Italy; and a tunnel to the sunny land would be next in order. Returning, the iron-horse and young Rhone had a match race of 80 miles to Villeneuve. All rivers in Switzerland are famous for speed. Their early life is spent scrambling down hills steep as house-tops, so they form racing habits which are indulged when there's not the least occasion for haste. But in any kind of speed contest, the Rhone is ahead.

Martigny is a village of hotels, guides and coaches, a starting place for St. Bernard and Chamouny valley. To the latter one

may proceed either by coach or on foot by bridle-path. Both follow a course like ships tacking, and the pedestrian sailing closer to wind, can easily keep up with a carriage. A few hours' climbing bring to the first pass (Trient) from which Martigny valley is seen smothered in mist. The view is enchanting and not a little provoking, as the small town we left hours ago seems only distant a few minutes. By a short digression to left glacier du Trient may be visited. It is the farthest north of the Mt. Blanc ice-fields and is a good sample of a shrinking glacier, having shortened at least half a mile, as may be seen by the wreckage. The remains of a small railway and station buildings show that at one time ice was being carried away probably for hotels at Geneva and Vevy. From Trient pass the traveller has choice of two roads to Chamouny—one a coach road with terrible wild display of precipice and gorges for a short distance, the other a bridle-path which in clear weather affords one of the grandest displays in Switzerland. But the weather is not always clear; yet if one lose the sights he has the fun of a very steep climb (100 yards of which will sweat him), mostly through forest, thinned by avalanches and landslides. Before reaching the summit flecks of snow dotted the ground, becoming a thin mantle on top. The air was cold and vagrant clouds were scudding past, skimming the earth. Descent to the valley is steep, through hill pastures. Roads now are excellent and smooth as a street in London—tourists are passing in groups, on donkeys or in coaches, the average number of strangers yearly being placed at 20,000. The valley extends to Geneva, a distance short of 60 miles, but only about 15 miles at base of Mt. Blanc is considered first in order of merit. Going from Martigny the valley opens in all its glory three miles east of Chamouny. The bottom is tilled like a garden, Mt. Blanc rising to left, cultivation climbing its base, then an area of forest, the trees diminishing in size till they give way to rocks and wreckage; above that snow pure and white that regards not the heat of summer. The first glacier we come to is Argentiere, of great extent, a wild chaotic kind of place which I ascended only a short distance. Three miles to south is glacier de Bois, the ice farther on resembling ocean billows with great clefts between. Its length is rated at 12 miles, its width from one league to a quarter mile. A great part of its course is perfectly level, along one side it is covered with earth and fragments of rock, the largest probably 40 feet. The bottom is arched and is known as 'source of the Aveiron.' It is unsafe to enter as great slabs of ice are frequently falling; and in 1868

an English lady was killed in this manner. To east is the Aiguille de Moine, its crest rising many thousand feet in rock splinters apparently clear and sharp as if split from a quarry. Alongside these glaciers (except where they are walled) are great ridges of earth and rocks from 100 to 200 feet in depth. Often granite blocks almost the size of a cottage are left on top of these ridges looking as if the smallest push would send them thundering down with the crash of an earthquake. Four miles to south, glacier de Bossons comes down a steep grade, then over some precipice, causing the ice to crack in all directions. In due time the sun-heat makes it resemble pyramids and spires, rising above the moraines. One of the routes up Mt. Blanc is along this glacier. While small bits of stone sink into ice in summer, such large fragments as mentioned act differently. Their mass warding off the heat while ice around is melting, they gradually become elevated on blocks, till losing balance, they fall over and again begin to raise another pedestal. This continues till they drop off at the bottom or are stranded on one of the moraines.

Mont Blanc is not a single peak or cone but a chain or group, over 20 miles from north-east to south-west, its greatest height 15,780 feet (nearly three miles); 56 glaciers run down its sides and since 1860 the boundary between France and Italy extends along its summit. The line of perpetual frost is from 8000 to 9000 feet above sea-level, and altogether it covers 98 square miles. It was first ascended by a Swiss guide in 1786, who during illness from fatigue and exposure, informed a physician what he had done. On recovery, he and the doctor made a second visit. Next year the great Swiss naturalist, de Saussure, went up with 17 attendants. But what a century ago would almost confer celebrity has become so common that now the ascent is made 40 to 50 times each summer. Fatigue must always be considerable, but danger in clear weather is trifling, and experienced guides will not set out unless appearances are certain. So late as 1870 a party of 11 perished by a storm coming suddenly up; and the same year a lady with her guide fell into a crevasse when about half-way up from neglecting the precaution of being fastened together. At least two days are required for the trip, and often three. The first day an elevation of 10,000 feet is reached and the night spent in a cabin. Next day after completing the journey and having a feast of observation, the hut is reached on the down trip and perhaps the bottom. Needless to say, the cold on top is severe. The ascent

is made principally as a cap-feather, for the view is less satisfactory than from lower heights. To a person of small means the expense will assist subsequent recollection. Each traveller must have a guide and porter, the former gets \$20, the latter half as much, whereas needed supplies and contingents will raise the bill to \$40 or \$50. The small town of Chamouny, a mile from the mountain, has about 3000 people, with the Arve rushing by. But it is the stream of travel that moves machinery here and not water, as from banker to beggar all draw their support from the tourist. Besides the dozen or two of second rate and pensions, six or seven hotels are large and pretentious, tariff \$2 to \$3 per diem. The place is headquarters for transit trade from Geneva and Martigny, and from appearance along the road I judge the business must be extensive. The number of horses to each is from three to six, the larger vehicles carrying 24 people. But one not laden with ducats can see things to better advantage on foot. If a person is without guide or porter the fault is not theirs, for he is more likely to be crowded with help than to lack assistance. The fraternity is well organized under one chief or captain with whom the traveller makes arrangements. The rate per day is about \$2, increasing according to difficulty or danger; but generally a certain tariff is paid to various points according to schedule. They seem to consider all strangers laden with wealth and look coldly on one who is his own guide and porter. Along mountain routes one is constantly assailed by children and others, offering milk, berries and service, to establish a claim for gratuity or wages. At Chamouny the piles of alpenstocks, wood sculpture, rock jewelry, photos and bijouerie look almost enough to load a vessel. From the best hotels to the humble *bergerie*, before one leaves a printed blank of less size than foolscap is laid before him to be filled, stating the time and place of birth, his occupation, where he came from, whither going and many other questions.

The mountain rampart to north of the valley is over 8000 feet high, and is ascended by many who care not to undertake the greater height. To take the matter coolly requires a day and the ascent tho steep is quite safe. The lower parts are closely wooded, while the summit is covered to unknown depth by rocks of all sizes, looking as if poured from the clouds. Tho slightly below the limit, patches of snow were lurking and frost was sharply at work wherever the sun's eye was averted. The outlook was fine and well worth being stored among memory's treasures. To north-west a congregation of sharp-peaked mount-

ains; to north a chain of distant heights dimly visible; to north-east, Col de Balme with its *Bergerie* and beyond, a part of Rhone valley filled with blue mist or vapor; to south the giant Mt. Blanc with its mantle of snow, its icefields, its frozen rivers, its splintered crags, its green forests at base, its top looking a quarter mile off tho more than 16 times that distance. The valley between is the greatest attraction, a patchwork of yellow and green, two white streaks running lengthwise: the Arve and the excellent highway of Chamouny. The town, tho two miles away, looked scarce 200 yards off, so near and distinct did everything seem; people stirring about and coaches arriving, but no sound followed the movements. The view to west was of great rural beauty: a broad cultured vale with its fields, orchards and forest, its homes and its churches, the blue smoke of its households ascending into the calm ether—the whole 15 miles off, but looking one-tenth of that distance. To south-west appeared a confused expanse of heights and billows. On descending at eve a fine rural sight was presented at foot of the mountain. A small group of houses stood near among fruit-trees and the dwellers were out at work, seemingly in common. The sun had disappeared long ago, but was shining in full blaze on the unfurrowed brow of Mt. Blanc, which reflected so much light as to cast shadows. Men and women were sowing and reaping, others gathering and binding, some digging potatoes, some pulling flax, their labors spiced by cheerful conversation. A few who had passed time of active service were, with youngsters, watching cattle. Shouts of warning were raised and runners dispatched whenever a greedy bovine stepped beyond permissible limits; the barking of dogs, laughter and frolic of children, the cheerful clatter of voices, the whole surrounded by the cream of alpine grandeur formed a scene not devoid of attraction. The small town was within short distance, with its hum of industry and jar of commerce. Coaches arriving, passengers alighting, steaming horses being unharnessed, postillions shouting as thirsty teams unbidden started for water. Returnig guides and porters were there, besides a mixed multitude who had no special aim except the interest we all take in hearing the news and admiring 'the fashions.' The view to south surpassed the glory of Lebanon, while the evening incense of blue ascended from stately hotel, from hall and cottage. From the summit to north, shafts of indefinable shade crossed the valley, rising by degrees as the sun was sinking. During my stay here the sky was cloudless. On retiring each eve the highest point was tinged with gold, and on

waking at morn the sun was crowning his majesty with like color.

Three or four miles to west is Ouches, unimportant except for its tin-spired church. Here by the roadside stands a large iron cross in a foundation of granite with the inscription—'Mission of 1878, 300 days' indulgence.' The Arve is here crossed by a handsome bridge and a mountain spur from south changes the valley into a wooded glen, the stream tearing and rioting through a chasm some hundred feet below. The barrier to right goes up almost straight for several thousand feet, yet large trees are growing wherever terrace or cleft supplies a foothold. To left the sides are less steep, but wild, uneven and densely wooded. Some miles farther, an expansion to right gives room for a village (Servoz) at base of the mountains, the clear rocky crests above set off with snow patches. Near by is a saw-mill, not badly equipped and with plenty of timber. A terrible canyon extends to east and a frame gives admission. A little farther the coach road tunnels through a mountain spur for about 90 yards; and in 1863 while the work was in progress, a passage that admits a person stooping, was discovered some dozen feet above. The work is thought to be Roman. Rock in this section is mostly slate, and when it shows above ground, looks as if smoothed by glacial action. Glacier mills are frequent, some of them 20 feet across. A relay station is here planted amid scenery lovely, romantic and wild as imagination could picture. The road is smooth as a pavement while the Arve continues its struggles in a canyon to right. After two miles of this sylvan grandeur a turn to left, quick as raising a curtain, unfolds a panorama of extreme beauty. All at once the wooded glen changes into a level vale, a mile across, clothed with orchard and meadow. (Just here the road is cut for some distance into the rock, showing a face of at least 300 feet.) The slopes each side are well tilled and dwellings hide among nut-trees and orchards. A glance takes in four miles of valley, in which extent are seven churches each with tin-covered spire and roof. Few rural scenes surpass it and a slight stretch of fancy would call it a poem. In a wooded glen about a mile to south is the great water-cure establishment of St. Gervais, built along three sides of a square and with accommodation for many hundred persons. Beyond the baths is a fine cascade, and the grounds in front are laid out in gardens, shady walks, ponds, islands, avenues and bridges. Sallanches is a mean village of some 2000 where the vale narrows and the sides become ramparts almost straight up, terminating in bare rocky splinters. The scenery from this to Geneva, tho not rated

first-class, is quite fine. I remained at Sallanches on night of August 28th, and had no cause to regret it. Next morn was of unrivalled splendor—the air still, the sky clear and ground white with frost. The valley to north was charged with vapor now changed to purple by the rising sun; the vale in front was over-spread with mist, tree-tops and churches rising above; 15 miles to south-east (apparently half a league distant) stood Mt. Blanc with untorn mantle of white, now looking golden. What display of magnificence—how can I store it for future remembrance? Cow-bells were already in motion and their united chime at a distance produced melody in harmony with the scene. I stood endeavoring to charge myself with this glorious vision, when a callow young rooster leaped on a barrel and in harsh, strident voice began greeting the morn. I left and went in to breakfast.

As already said, people here are noted for industry and before long, slopes facing the east were alive with men and women digging potatoes, cutting hay and grain, pulling flax, picking apples and prospecting among nuts; picturesque homes beside orchards or under trees, with children about the doors—this picture amid such resplendent glories, deserves a place in any collection. I am now retracing my way to Chamouny and the industrial scene continues for miles along the slope. The roads are quite narrow, probably to avoid waste of land; a deep trench is at each side but neither fence nor hedge. In every hundred yards or so is a wide section, no doubt for carriages to turn and pass each other. Fruit-trees are along the road and lines of poplars tall as ships' masts and trimmed, except a bunch at the top. I met a company of Savoyards going to garrison a mountain fort on the French-Italian frontier; they wore blue woolen bonnets like the peasantry of my native land. A disagreeable feature here was the number of women at work I had associated with the sterner sex. This morning I saw five ladies mowing, some of them keeping step with men and appearing competent as the 'independent electors.' A day or two ago I met a portly dame carrying a scythe and whetstone after a little I meanly peeped round—she was whetting and immediately attacked a field of oats with skill and vigor. Near Chamouny I saw women carrying loads of grain to a barn at least a quarter mile distant; indeed this work seems to have fallen entirely to the lot of 'weaker vessels' in the distribution of punishments and rewards. To-day a young woman was breaking stones by the roadside, the only instance of the kind in my rambles.

On August 31st I left this lovely vale with keen regret, casting

longing looks from a point where the glorious panorama is lost to sight. I returned by Tete Noir, for about four leagues a wide rocky trench, shut in by mountain ramparts. Still the place is thickly settled and needless to say body and soul are held together at point of the bayonet. As in Quebec province, stones gathered in clearing land are laid in ridges along middle of fields. It is however a satire to call the place 'land,' most of it being rock. Immense quantities of flax are raised, covering much of the ground when spread to dry. Clear streams everywhere rushing and leaping in cascades and torrents. In this country one is always within sound of running water and the tinkle of bells on cow and goat. Water-power is without limit, often ready to set the wheel in order against it; but the machinery is extremely rude, looking as if made with axe and auger. Clusters of houses are sometimes huddled together without any arrangement and only a few feet apart, so that in wet weather conditions are not pleasant. Numbers of coaches were met laden with tourists; and at a hotel midway a dozen vehicles of various grades were at rest, while people and horses were feeding. Shortly after, the coach road turns to right, passing a section wild and terrible as a nightmare, difficult and dangerous till the present road was cut. The road to Vernayaz turns to left, slanting along a steep mountain side, down which tumble rocks of all sizes, as if poured from the clouds. To right the Trient rumbles in a dark gorge many hundred feet below; to right of this, rocky walls ascend for several thousand feet nearly straight, yet trees grow wherever crack or crevice affords a footing. Even on these heights, wherever there is standing room, a cottage or hamlet is planted; so far off are they and so much the color of surroundings that one searches for them like an astronomer hunting for planets. How do the denizens live is the first question principally by means of goats. In summer the creatures find living most anywhere; cheese is made of their milk and this constitutes chief food for winter. Summer is largely spent in procuring and drying fuel and forage—both secured with difficulty and danger. I saw grass carried in creels and tied in bundles along places where man would not venture in search of pasture—nearly the same could be said with respect of fuel. In winter they earn something by wood sculpture, alpenstocks and trinkets. Of course only a small proportion live as here mentioned; but everywhere the heat for existence is more severe than in this country. While stepping along, eyes and ears all attention. I fancied the sound of voices mingled with the din

of struggling waters. I listened, peered into the wooded gorge perhaps a thousand feet below, discovered at bottom a humble home, women talking and washing, children at play and by all means a goat. I was almost speechless—under what dire conditions humanity can exist. I have an idea the sun never peeps into those dismal shades even at high noon in summer; yet the dwellers seemed happy as on the flowery banks of lake Como. Even among those wild upheavals the telegraph post is on duty and the electric wire declares the march of progress and desire for knowledge. We are now back into the land of Tell—in Valais canton, the home of gaitre and cretinus. Hill sides are terraced for barley, oats, potatoes and turnips, as along the Rhine for grape. Where mountain sides are less precipitous, there are hamlets and churches. Here women are making hay on a hill-face steep as a roof—how can they move about in winter, with snow and ice on the ground? Along this range a new house was being erected and a bush set off with gay colored paper and ribbon was nailed to peak of the rafter recalling an old-time usage in this province. Farther on a gorge to left has its mouth closed by a hotel where admission fee is exacted. Now I come to a section where ridges of rock follow each other like sea waves, the road passing between two ridges. No vagrant stragglers these but natives permanent and solid since perhaps the Silurian epoch. Then great ashlers a hundred feet or more, split from standing rocks, with line of cleavage smooth as a wall—rocks of every size, shape and angle of deposition. One almost concludes the foundations of a world had been laid here, these giant fragments remaining as they dropped from Titanic mauls and monster chisels. In due course I arrive at a village on level ground, with church, paved square, public fountain, hotel and tourists. This passed I began to descend through a thick forest and soon I met seven or eight men and women carrying on their heads bundles of grass tied in sheets. These loads were perfectly round, about four feet across and two in length, weighing half as much as a person. They had ascended steep place and were resting when I came along. On resuming their march (single file), with slow, stately movements, they looked odd and fantastic—their exaggerated turbans resembling nothing I had ever seen. I have no idea how far they carried the load—certainly miles along a road steeper than stairs. I met other detachments farther down; but being all men I wasted no sympathy on them. After continuing this downward course till I thought every turn would bring the Rhote valley in

sight, a steep descent of 130 zigzags began, which if drawn straight would doubtless measure four miles. After what seemed an endless proceeding the Rhone valley began to appear through the wood; even then distance seemed to grow faster than I could travel. Vervayaz, two or three miles from Martigny, consists of scattered hotels, with a railway station. A short distance off is Trient gorge, a narrow fissure in the rock with walls rising 400 feet; here sunshine never enters and one has an idea of being in a cave, so dark and dismal is the canyon. A footway runs along one side, the Trient rushing madly beneath in cataracts and rapids at one place said to be 40 feet deep. The gorge is 8 miles long, but about half a mile at its mouth is usually sufficient. A little north a fine cascade falls 200 feet into the valley, part of it being used to drive machinery. From here to Villeneuve (about 20 miles) the valley is a league broad with high ramparts of rock. It is a beautiful stretch of country, carefully tilled, fine avenues of poplar, groves of pear, apple and nut trees, also grape culture. Village and towns are frequent, the Rhone winding among them, while snow peaks are often in sight. In 563 a town here was destroyed by inundation of mud and in 1835 the place had a similar visit. At Villeneuve I took steamer for Lausanne, passing Chillon and the lovely scenes along shore farther north.

On Sept. 2nd I left for Paris, distance 350 miles. At first the track passes through vineyards; farther on the country has appearance of a park, undulating meadows, orchards and nut-trees, the heights clothed with forest. No fence, hedge or dyke along the track or separating fields—haymaking in progress and great many gathering and mowing. From Lausanne to the frontier we are in Vaud, extending 60 miles in greatest length, one of the finest cantons, with 260,000 people. Now the country is hilly and the roadbed perhaps the ugliest I travelled. Tunnels are frequent and the track makes two loops or goes to gain higher level. Immense quantities of flax are raised, apparently a leading staple. Fine picturesque country, a range of hills resembling the Ochils, now the view recalls Italy at Callendar. Next, a charming vale and delightful clean village with high wooded ramparts each side. The track is nearly 3000 feet above sea level and soon we are passing a section that resembles P. E. Island, had it our style of crooked fences; farther on a spruce forest, sawmills and piles of lumber recall the neighboring province to west. Here is France; we change train at Pont

arlier and our goods are inspected. Again in motion and if the reader can keep step I will give an outline of what may be seen from a window; while we are moving 30 miles an hour, the reader must steam ahead 60 miles a minute. Now for it—Country level, soil hard and poor; haymaking, and hauling with oxen; grain very short; no fences along track or dividing fields. Some are cutting peat; small towns frequent, no individual houses along roads as in this country. Very poor oats in narrow strips, being cut with scythe; old hats on stakes to deceive birds; crosses along roads and in fields. Soil poor and rocky; high rocky bluffs; cuttings and tunnels; large section of forest. Level country looking dry and poor; areas of young spruce forest. Now the country looks better and crops everywhere have fine appearance; towns and villages frequently passed; sections of young oak; then hilly country with some grape culture. Large forest to right; haymaking briskly in progress; crosses by roadside; stones gathered in rows in middle of field; stretches of wood; part cut and neatly piled; small twigs cut same length and bound in fagots—trees are cut near the ground and nothing is left to show a forest had stood there. Evidence of careful cultivation in narrow strips and grain looking excellent; good deal of corn raised; large areas of plowed ground; hedges along track but no division between fields; small towns frequent but apparently not much business on the line. Large section of young wood growing after being cut a few years before, some trees left standing. Beautiful country here with village and hamlets thicker than ever I saw them; large sections of wood, some cut, other parts thinned out, soil yellow with abundance of heather showing unfitness for cultivation—this forest I think extends a dozen miles along the track. Large stream (Doubs) with fine avenues alongside; country looks good and large sections plowed; at 3.30 change cars at Dole, a place with 12,000 people in midst of rich country; railway station handsome. Deep cuttings and acacia along track obstruct the view; now the subsoil consists of yellow ocher, a thin layer of soil on top; haymaking in progress, fine-looking country; now the ground consists of yellow sand with crop of trees. Large herds of cattle, yellow, white and tawny; great variety of root crops in narrow strips; potato-digging finished and tops burning. Here the Saone is passed, a wide shallow stream, the town of Auxonne with 13,000 people and a fort; great herds of cattle, men and boys in abundance; section of forest; next a district perfectly level with great variety of crops; large areas of plowed ground,

the horses follow each other whether two or three in a team; horse and ox plowing, the horse ahead; large areas of turnips, other roots and garden stuff; beautiful avenues and lines of poplars before entering Dijon.

This town, 190 miles south-east of Paris, is capital of a department and has about 40,000 people. It was taken by Germans in 1870 and was for a time headquarters of Werder. The cathedral dates from the 13th century, has a graceful spire 300 feet, and with two or three other churches deserves a visit. The town hall (once a palace of Burgundian dukes) is a large, showy structure, its magnificent saloons containing a fine collection of scientific and art subjects. A handsome square enclosed by metal railing has a fine marble fountain, with statues and terrace. In the vicinity are large showy hotels and public building. Older parts of the town are narrow with odd-looking houses a style of centuries ago. Several old churches have been turned into store-houses, armory and stables. The place is badly infested with beggars and about average as to filth. In mornings the ashes and garbage are dumped on the street to be sorted by dogs and persons driven by want to that species of forage. The day I arrived was extremely hot and at night crowds were seated at tables in front of hotels opposite my window drinking wine (this is Burgundy-wine district) and making terrible racket; I was not sorry when at midnight pouring rain and crashing thunder sent them to cover. The railway passes through Dijon 12 or 15 feet above street level, then for several miles through deep cuttings. Country at first hilly, rocky and barren, followed by improved conditions; high ramparts each side the track, their tops wooded; stones laid in ridges in middle of fields; hilly barren-looking country, thin covering of soil on rocks; now a valley several miles wide and vineyards on slopes; again hilly and mostly under grapes; tunnel two or three miles long; orchards and vineyards; numbers of quaint old villages with stone-covered roofs, looking as if built before Caesar's invasion; fine avenues of poplars and willows along streams; rough stony section; next change, the soil is of rust color; flock of sheep with man and dog watching; brushwood in bundles like sheaves, built into stacks and thatched. The business in charcoal is quite extensive, always in bags and piled at stations; cake coal is used for the furnace. Haymaking in progress and a woman is seen occasionally with scythe; mow, reaper and rake at a farmstead of good appearance. Auxerre with 14,000 people on river Yonne (80 yards wide) in midst of vine district. For over 100 miles the track passes



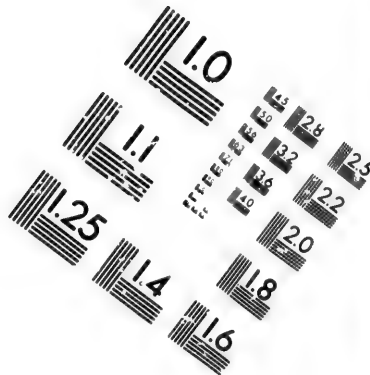
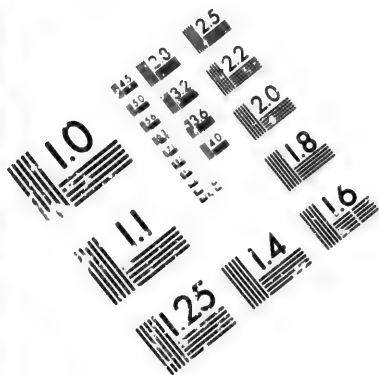
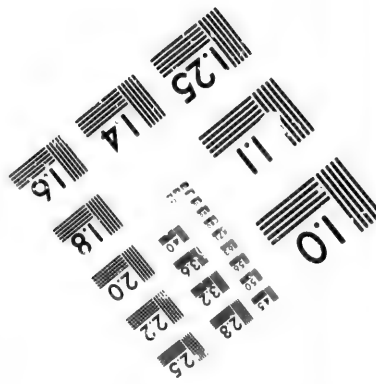
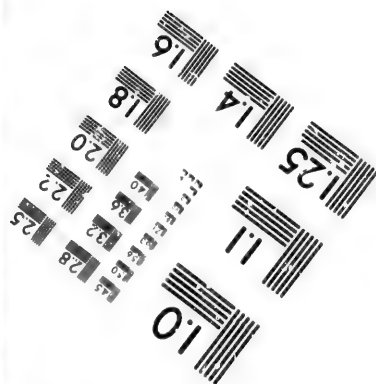
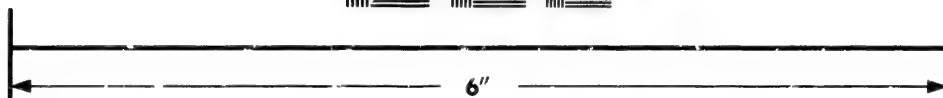
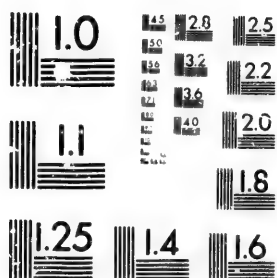


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through Yonne valley, from three to six miles wide, alluvial soil, perfectly level, tilled like a garden, great part plowed and harrowed, parts being cross-plowed; slopes vine-clad; towns and hamlets frequent; sections of forest and beautiful avenues by the roadside.

It is now 6 p. m. and we'll stop at Fontainebleau, a clean pleasant town with 12,000 people, two miles from the Seine and 36 miles from Paris. The town has no lion except its palace, which to some extent corresponded with Windsor castle in Britain. It dates back 650 years, but was restored and remodelled by many kings. Like an ocean shell its outside is rusty and gnarled, but a wonder of imagery within. Extensive parterres and gardens are to east and south, with rows and avenues of limes, trimmed and polished as with square and compass. This flower patch is about four acres in extent, a blaze of floral beauty seldom matched. There are 160 beds and one side of the great central walk is an exact duplicate of the other; that is how they do things since the Dutch style came into fashion. Nearer the palace is the famous carp pond, an artificial sheet of water, fairly alive with monster carp. A terrace with rail juts over the water where visitors stand and watch a literal 'battle for bread.' A woman sells buns on the spot and not a few cast bread on the waters to see the greedy things fighting for morsels. In front of the palace is a paved square where Napoleon spoke adieu to his soldiers in 1814, when departing for Elba and where next year he reviewed his troops previous to the Belgian campaign to which Waterloo put a finish. In this palace Louis XIV. by signature revoked the edict of Nantes; next year the great Conde suffered death; in 1765 the Dauphin was killed by poison; here Josephine was divorced in 1809, and Pope Pius VII. was captive for two years from 1812. Like Hampton court, its gildings and tapestry hide deeds of blood and scenes of carnage. But let us enter—the palace is open from 12 till 4 except on Tuesdays, and a guide makes a circuit of the rooms each hour, saying a few words in passing. The chapel (first shown) is to left on entering, perhaps 60 feet long; walls and ceiling pure white and lavishly gilt; beautiful floor of tessellated marble; seven recesses each side, with doors, and open above; chairs, pictures, statues and four bronze angels. Here Napoleon III. was christened in 1810. Next a suit of rooms occupied by Napoleon I., all handsome as gilt and tapestry can make them. In one of them is the table on which he signed his abdication in 1814 before setting out for Elba. Three or four

rooms occupied by Marie Antoinette are of rare splendor. Window-fastenings of the boudoir were made by her husband, Louis XVI., showing him to be a better smith than ruler. Her monogram of inlaid wood in the floor is beautiful. The bath-room walls are of chased mirrors, the door of figured glass. The bed-room (ceiling very fine) was successively used by Marie de Medicis, Marie Theresa, Marie Laczinska, Marie Antoinette, Marie Louisa and Marie Amelie. The throne room is of great splendor, panelled ceiling apparently 18 inches deep, floor of costly woods tessellated in figures. Needless to say the throne is gorgeous, together with its canopy of gilt and crimson. A chandelier of rock crystal is valued at \$10,000. On a table in this room marshals swore allegiance to the empire. Galerie de Diana is 260 feet long and of great splendor; ceiling by eminent artists, scenes from mythology of Diana and Apollo. Here are the sword and coat of mail (both rusted) worn by Monaldeschi, (equerry of the erratic Christina of Sweden) when slain here by her orders. Along the wall are 30,000 choice volumes behind glass. Here are Napoleon's writing table and a costly vase, six feet high. Three of the four rooms occupied by Pope Pius VII. are very fine. The ball-room is a wonder of magnificence, walls ceiling and tessellated floor. The orchestra gallery in one end is in keeping. In 'gallerie des fresques' 128 plates of Sevres china are inserted in the wainscoting, each with picture of landscape or palace by eminent artists. They were specially got up for some grand refection at cost of \$80 each and afterwards disposed of as stated. Galerie of Henry II. built for the beautiful Diana of Poitiers is of surpassing splendor. The lady is here represented on canvas. The saloon of Louis XIII. has inserted in its wall a mirror about a foot square, presented by the republic of Venice to Francis I., and said to be the first seen in the country. The room of Madame de Maintenon (favorite mistress of Louis XIV.) has hangings and bed curtains of yellow silk, said to have cost a fabulous sum. Chairs and sofas are covered with the same. The theater is small with seating capacity for 300, intended for the court and guests. The walls, ceiling, stage and seats are covered with yellow figured silk; while a band of gold runs along the edge of seats and stage in front. The chairs on which Napoleon and empress were accustomed to sit are pointed out. A small anteroom at entrance is lined and fitted up exactly the same. The whole thing is of incomparable beauty. The grand stairway is also very magnificent. Altogether some two dozen rooms are shown, not a few hung with

gobelins tapestry; while most of them contain rare things such as clocks, cabinets, bureaus, statues, pictures, vases and screens. The chandeliers are extremely brilliant. The cradle in which 'the king of Rome' (born 1811, died of consumption 1834) was rocked is among the curiosities. Needless to mention that it is gay and gorgeous. Many a virtuous family was brought up in a house that cost less money.

A forest belonging to the palace is about 50 miles in circuit, intersected with great highways smooth as a pavement, besides numerous drives and footways. The ground is even as a lawn—no fallen trees or decayed rubbish to obstruct or offend. The woodman's axe is heard in every quarter and decayed trees or windfalls are cut in exact lengths and carted away for fuel. Not a chip or twig is left. A few trees are of good size, one I measured being over 20 feet round and lofty in proportion. Small booths for sale of fancy articles are in vicinity of such patriarchs and strangers take away mementos of their visit. Now we are off to Paris, the first 10 or 12 miles being through wood; beyond this a farm district of hills and hollows. Fields are large with indications of excellent culture. A dozen grain stacks in one field was common—large well-shaped and beautifully thatched. The land seems to be worked fine as a flower-bed and made to produce more than in this country. Oxen are largely used and perhaps to advantage. Along here I counted 8 teams of white oxen (4 in each team) attached to cultivators, no doubt for pulverizing and tearing out couch. Many towns and villages are passed and the view is by no means tame. The Marne after a course of 200 miles joins the Seine outside the city and is crossed before reaching Lyons station.

Paris stands on both sides of the Seine, 110 miles from its mouth, in the latitude of Articosti, $2\frac{1}{2}$ degrees north of Charlottetown, but with the temperature of New York, tho eight degrees nearer the pole than Gotham. The river (100 to 200 yards wide) enters at south-east and after making a sweep towards the center, leaves at south-west, having cut off about one-third its 35 square miles. The stream is crossed by 23 bridges (the oldest built in 1500), and a fine parapet four feet high extends along each bank—the whole measuring 12 miles. The greatest diameter of the city is $7\frac{1}{2}$, the less $5\frac{1}{2}$ miles and the ground is mostly level. A line of fortification 28 miles long, 32 feet high, with fosse 18 feet deep, surrounds it, while the approaches are defended by 16 detached forts. These defences were put up 50 years ago at cost of \$30,000,000, causing citizens

to kick lively at the scheme. Next to London with about half its population, Paris is the largest and perhaps the most wealthy of European cities; while it has long been considered a focus of civilization; and standing aloof in magnificence of style and gayety of its people. Little of old Paris remains and a stranger is struck with the width of boulevards and uniform height of houses—being mostly six or seven storeys. Here the general government attends to what in other places is done by individuals or corporations. For instance wherever a section of buildings is noticed to be 'out of harmony with environs,' the properties are valued, money paid, inhabitants notified to leave, dwellings pulled down, the site laid out anew and built upon. Should the former dwellers choose to buy or rent, they get first offer; should any feel aggrieved on the score of valuation, courts are open and there are deputies. But as prime value is usually paid, this seldom happens. People in the new world might not like the scheme, but here it works to advantage; it gives employment to workmen while it tends to make the place beautiful and healthy. These two conditions attract people from abroad, giving the city large revenues from tourists. Besides those who stay a week or month, not a few wealthy scions from America and England spend most of their time there owing to the pleasant surroundings. During my first visit I judged there were at least 100 staying at the hotel, each paying \$2 to \$3 per day for breakfast and dinner; where I staid next time the porter told me there were 150 guests, at somewhat higher figures.

One is often asked how Paris compares with London in appearance; my reply is—'much the same as a dude compares with a working man, or a landau with an express wagon.' London is a man in soiled clothes, Paris a dandy with beaver, cane and kids; London is a working day with smoke and dirt, in Paris it is ever Sunday, tho according to our views they have no Sabbath. Parts of London are certainly fine and perhaps no street in the world excels 5th avenue New York—about four miles of it and every house grand enough for a sultan. But these places lack the clean uniformity of Paris—while in them parts are fine, others are naughty. As to streets, no such regularity exists as in Turin; the boulevards are wide as two or three streets, bordered with trees and paved with asphalt. Along these, sidewalks are extensive as some streets, while tasty news-stands under trees improve the appearance. In London a person striding along in his night dress would draw little attention; not so in Paris, where everyone is expected to come out

decently attired. Tall chimneys defile not the air, while for household fires charcoal and wood are used; in this way buildings retain their good looks to old age and decrepitude. The manufactures are mostly articles of show and luxury, requiring small power and producing little dirt; the principal are jewelry, watches, mirrors, gloves, perfumery, flowers, fans and millinery. A government tobacco factory employs about 2000 hands, mostly women. If, as some claim, public debt be an advantage Paris should be prosperous and gay, ballasted with \$400,000,000, the yearly interest amounting to \$6 or \$7 dollars per head. The taxes are therefore heavy and little escapes. A hotel bill of a week or two's board bears a 10 cent government stamp; and calling one evening at the V. M. C. A. rooms I was told they had received notice that government had in contemplation to levy 20 per cent. on all sums received by the society. In 1870-71 Paris was shut in 4 1/2 months by the Germans, a fierce bombardment winding up the business; this was no sooner over than the commune took charge and the place was besieged two months with more terrible effects. Even women and children paraded the streets with petroleum bottles as in the fury of 1793, firing houses and doing all the harm they could. During this second reign of terror, lasting 73 days, 238 buildings (31 of them public) were destroyed; the whole damage estimated at \$200,000,000. Let us now attempt some description. North of the Seine and about the center of Paris stands the Louvre, each side over 600 feet long, enclosing a square of four acres. It was built some 400 years ago as residence for crowned heads when visiting Paris. Its walls exhibit works of famous chisels, and its saloons of the most skilled brush. For many years it has been a repository of art treasures, and on every day except Monday is open to the public from 9 till 5. Its 130 apartments contain such a wealth of pictures and marble that the name has come to mean art without limits—even a catalogue of the contents fills 30 volumes. On the ground floor are ancient and modern sculpture, Egyptian, Assyrian, Greek and Roman; on the second floor, antiquities, papyrus and pictures—miles and acres of them. On the third floor is a museum showing the progress in naval art for centuries—models of famous vessels from all lands, some models 16 feet long and many fitted out to the minutest details. Everything belonging to shipping is also shown detached—among the rest a cable 12 inches across. One part of the building contains tombs from Bolivia and Mexico, and a Chinese section consists of objects taken from a royal palace near Peking.

in 1860. A vase of porous stone from Cyprus, 36 feet round the top and 7 feet high, was the largest bowl I saw in my travels. A map of France in mosaic, marble ground and 200 years old is an extraordinary work. But the crown jewels—their marvelous brilliancy is beyond words. Let me not belittle the British fit-out seen at the Tower, but they are clumsy, awkward and cheap (scarcely worth carrying off except for old metal) compared to the former. I was told that at night the stand and case containing them are let down into a vault beneath. On May 1871, the Louvre was fired by the communists, and the what was of greatest value had been removed. 80,000 volumes and many rare MSS. were destroyed. Now for the Tuileries. If the reader can fancy the parallel sides of the Louvre extended westward nearly half (say three-seventh) mile, opening slightly and their ends joined by a building facing west, over a thousand feet long and of convenient width, this latter is the world-famed Tuileries, the usual residence of French kings since built over 300 years ago. This quadrangle, covering 24 acres, enclosed 36, the distance round the whole being three half miles. It was not my good fortune to see this extraordinary structure, admitted to have surpassed in splendor if not in size any residence since the days of Ninus or Sennacherib. History associates dark deeds and base intrigues with those halls of splendor, and perhaps the commune were unconscious instruments when laying low this crowning trophy of wealth and skill. A writer of to-day, referring to the despotism and corruption under the Bonaparte dynasty strikes out in this vigorous fashion: "The discovery of papers in September 1870 stripped imperial despotism of its tinsel and revealed the vile arts by which a gallant nation had been enslaved." The Tuileries was an eldorado of pimps and parasites, panders and wantons. For 18 years he retained power acquired through perjury and violence, by pandering to baser passions of his subjects, and by a system of fraud, mendacity and espionage. Beneath his blighting rule French women sought to surpass each other in reckless extravagance and Frenchmen lost the courage which half redeemed their frivolity. Honest citizens protested against successful villany but few listened to their warnings. All that was noble and generous in the nation withered by uncongenial soil—the language of Pascal and Corneille became a medium for corrupting the thoughts of millions. Events of the day were some actress who had discovered a new way to outrage decency, or some new play which deified a prostitute or an adultress. Paris became

a world's fair to which flocked the vain, idle and debauched. For a man to be rich or a woman to find favor in the eyes of some imperial functionary, was a ready passport to social recognition. The landmarks between virtue and vice were obliterated. The court smiled on the courtesan and paid her homage by endeavoring to imitate her dress and manners. Card-sharpers, disreputable adventurers and public functionaries were intimate friends. No one able to insult modest industry by lavish ostentation was asked how he got his wealth. Honor and honesty were prejudices of the past. What were the consequences? The armies of France scattered to the winds and taken prisoners. Paris the vaunted ornament of civilization abandoned to the iron grasp of German Legions and to the mad designs of communists. Such is the legend of the Tuileries.

In May 1871 this pile of ineffable grandeur, built and furnished at cost of untold millions, was set on fire by petroleum and powder. The conflagration lasted three days and nights, leaving the palace a stretch of hideous blackened walls and heaps of rubbish. In 1882 the whole business was disposed of at auction, the ground cleared and laid out in walks and gardens. In the enclosed square east of where stood the palace is a triumphal arch built by Napoleon in 1806 to commemorate his victories. It is 48 feet high and cost near \$300,000. West of the palace and in front of it were the Tuileries gardens, extending a half mile by a quarter in breadth. Besides verdant beauty in the way of flowers, trees and shrubs, there are frequent statues, basins and lakes. The farther end is planted with trees among which are thousands of light iron chairs, used in afternoons when a military band plays from 5 to 6 in summer. Everywhere are seats for accommodation of persons who may be rambling in the shade. In 1870 it became an artillery camp, where recruits were being drilled and the goose-step practiced—in complete harmony with customary ups-and-downs of Paris. The gardens are enclosed on three sides by massive stone walls—almost ramparts; along the west end assuming the form of a terrace. Adjoining the gardens is 'place de la Concorde,' a square of 19 acres, paved with asphalt and considered the most regal spot in Europe. From its center facing west the great 'arch de Triomphe' stands high in front; to right the Madeleine and admiralty buildings; to left across the river, the Bourbon palace, between which and the spectator is a bridge built of stones from the Bastille. In the center where now stands Luxor obelisk the guillotine was in 1793 planted; here Louis XVI. was beheaded with over 3000

nobles and royalists. Ascending the stand and surveying the crowd for a moment, the king commenced—'Frenchmen! I die innocent. I pardon my enemies and wish France may'—The drums beat, the executioners seized the king, thrust his head in position and the axe descended while his confessor was exclaiming—'Son of St. Louis, ascend to the skies!' Among the noted persons executed here were Charlotte Corday, Robespierre and his rival Danton, Demoulin and his young wife, the queen (Marie Antionette), Elizabeth (sister of Louis) and Madame Roland whose dying words were—'Liberty, what crimes are done in thy name.' This was 'the reign of terror' when 20 to 70 heads per day rolled from the block, and when women brought their work and sat day after day to watch the proceedings. The whole number of lives sacrificed are placed at 1,027,106.

The Luxor obelisk is a granite shaft 76 feet long, 10 feet square at bottom, weighs 240 tons and is covered with hieroglyphic inscriptions. Some 3600 years ago it stood before the king's palace at Thebes and in 1836 it was erected in Paris. The pedestal is a granite block 96 tons and about 30 feet in height. On its north side are represented in gilt lines the appliances used in removing and embarking; on its south, the machinery used in erecting. The whole business cost \$400,000, so that its value to Parisians is over 80 cents a pound short meter. At some distance to north and south of the obelisk is a magnificent bronze fountain, its bowl 52 feet across. Round the square are eight colossal statues or groups representing the eight chief cities of France; viz., Lyons, Marseilles, Bordeaux, Nantes, Rouen, Brest, Lille and Strasburg. That representing the latter is covered with imortelles to indicate mourning for loss of the city. Joining 'place de la Concorde' to west is the far-famed Champs-Elysees, scarcely 100 acres in extent but fairly running over with diversified beauty; lovely avenues, verdant glades, winding paths, flowers to dissipation, showy kiosks, handsome pavilions part hid in verdure, fountains sending up water, cafes with tables spread among flowery ramparts, play-houses with stage fittings of marvellous beauty. Seen at night lighted with globes of every shade, extending among trees—the most skilled fairy might learn lessons. On the ground are several dioramas, the siege of Paris among the rest. Here is also 'palace Elysees,' built in 1718 and inhabited by Pompadour, the notorious courtesan of Louis XV. Napoleon dwelt here part of 'the 100 days' in 1815, and Wellington shortly after; it was also used by emperor William in 1871 when his troops entered Paris, since which time it has been

official home of the president. To south of the park is an immense building known as 'palace of industries,' over 1000 feet long, the exterior adorned with busts of great men from all countries. It was erected for the exhibition of 1855 and is now used for yearly exhibits of paintings. A handsome group over the chief entrance represents industry distributing laurel crowns to the deserving. Now let us move on, still facing westward. A wide central drive starts from place 'de la Concorde' in line with the obelisk, a gentle slope half the way, then as gently rising till 'arch de Triomphe' is reached, two miles from the Tuileries and three half miles from Concorde. This avenue is unquestionably the finest in Europe, even surpassing Rotten Row in the British capital. Seen from top of the arch during afternoons with stream of gay, shining outfits it is one of the sights not forgotten. Even at night the hundreds of carriage lamps dancing and shooting like aerolites and meteors, with the steady sheen from square and parks—form a bewildering picture. Arch de Triomphe was begun by Napoleon in 1806, but not completed till 30 years later. It is 160 feet high, 146 broad and 72 thick, ascended by 280 steps and cost about \$2,000,000. The many reliefs represent battles and are extremely fine, while the arch is claimed to excel anything of its kind in existence. In 1871 the commune placed heavy guns on top (raised by steam power) and bombarded Mont Valerien citadel with much effect.

North of the Tuileries and separated from it by the famous rue Rivoli is an immense pile known as 'palace royal,' built in 1630 by Cardinal Richelieu who gave it to Louis XIII. It is about 1200 feet long enclosing a narrow square of 5 or 6 acres, laid out in avenues, flowers, fountains and everywhere supplied with seats. It is a favorite resort of nurses and babies, while aged gents doze away afternoons on easy seats, lulled to rest by pleasant sound of falling waters. Here meet the two extremes of Gallic life. The place was occupied by the Orleans family for several generations, than it acquired a bad name, a resort of gamblers and fast people. It served as residence for Louis Phillippe from 1814 to 31. At the revolution of 1848 the royal apartments were wrecked, pictures and furniture destroyed; in 1871 the south end was burnt by the communists but has been restored. The lower part is used as stores for the sale of jewelry and flashy goods, the second flat for cafes and part of one side as theater. In the garden a cannon is daily fired by sun-heat when that orb touches the meridian.

Outside of the city to west is Bois de Boulogne, an extensive

wooded park of great beauty.—handsome avenues, retired walks, jungles of flowers, artificial lakes, islands, waterfalls, gay pavilions, and multiplied beauty. It is a showy place in afternoons, crowded with the latest fashions and fastest rigs. Here is Longchamp race-course, the name of which is known to most readers. In 1814 and 15 much of the original wood was destroyed when the troops came to Paris, but it was afterwards put in trim at cost of about \$400,000. During the siege of 1870, from being the perfection of beauty it became a jungle of fallen trees, barricaded walks and sharpened stumps. In 1871 many a sharp tussel took place here between the commune and government troops. In north-east of the city is a romantic wooded park of 50 acres, with clear lake, crossed by a light airy bridge, to a rock turret 160 feet high, crowned with a temple. Two adjoining hills reach greater height, ascended by winding paths among flowers and lawns—the view from top is charming. In old times this was a place of execution; here the grand old Coligny was mangled after being slain by an assassin near the Tuileries and the magnanimous Charles IX. came in state to cast jeering insults at the headless remains, entitling him to rank in brutality with Caligula and Nero. Park Monceau (near the big arch) is a small, wooded vale with pyramid, stream, lakelets, bridges, mock ruins and statues—altogether a lovely spot. After the government army entered Paris in 1871, 600 communists (taken with arms) were shot and buried here.

Let us now have a peep at the churches—about 70 altogether. Notre Dame cathedral, a famous gothic pile, stands on an island in the Seine, about a mile east of the Louvre; area 400x160 feet, height of ceiling 110, has two end towers 220 and a handsome central spire 310 feet. The array of flying buttresses to east end mars the appearance in that direction. The great bell weighs 16 tons and a rose window in the west end measures 42 feet across. The building was finished 650 years ago, but restored since. In the revolution of 1793 it was condemned to the fagot but was spared and transformed into a temple of reason. In 1871 the commune piled chairs and fired them but the building escaped. The sacristy contains many relics, such as the crown of thorns, piece of the true cross, nail from the crucifixion, coronation robes of Napoleon, papal bull, silver busts of St. Denis and St. Louis. The building is estimated to hold 20,000. The organ is rated one of the finest made with 12 registers, 86 stops, over 5000 pipes and 22 pedals. A few steps bring to the 'morgue' where persons drowned by accident or design are exposed three

days for recognition. Every time I passed there were four cadavers on the slab, all of the poorer class. Sainte Chapelle is not far off, erected in 1248 to receive the relics now in Notre Dame. The interior is a marvel of gilt and decorative work. The Madeleine is a half mile north of 'place de la Concorde,' built on a platform 16 feet above ground, 28 steps (extending the whole width) leading up to the door. It is in form of a Greek temple (the Parthenon) without spire, dome or turret. Along under the eaves are 52 Corinthian columns 52 feet high, a double row forming the portico. In niches along the wall are 34 images of saints; the interior is gorgeously gilt and decorated by eminent artists. A relief on the pediment is intended to represent the general judgment, and on the great bronze doors the decalogue teachings. Light is admitted by three circular windows in the roof. This massive fane was erected 60 years ago at cost of \$3,000,000. In 1871 a formidable barrier of paving stone was raised opposite and only after a fierce street fight were the commune driven off; 300 who took refuge inside were promptly tapped with the bayonet. The range of magnificent buildings from here to 'place de la Concorde' were soon set blazing by petroleum and fire-engines. Near the Louvre is St. Germain whose bell gave signal to begin the murder of Protestants, August 24, 1572, the peals continuing merrily all night. The king encouraged the butchery by shouting excitedly from an upper window—'Kill! kill!—they flee! they flee!' The small church 'Notre Dame des Victoires' had a strange career: in 1791 it became a revolutionary taproom and in 1871 the commune destroyed the altars, violated the tombs, used the communion wine and in their drunken revelry clothed themselves in priestly vestments and performed a war dance and other high jinks. But they had their fun at beginning, for next morning they found themselves prisoners, were taken outside and shot. La Trinite and St. Vincent de Paul are modern churches of extreme beauty.

The Pantheon had an unsteady career since built a century ago at cost of \$6,000,000. It was first consecrated and used as church, then changed to a memorial temple; in 1851 the old name (St. Genevieve) was restored and worship renewed, to be again in 1885 secularized and dedicated 'to great men whom the country choose to honor.' It is 360x270 feet area with majestic dome (supported by 32 Corinthian columns) rising 270 feet. In its vaults are the tombs of Mirabeau, Marat, Voltaire and Rousseau. It bears some resemblance to the Capitol at

Washington, is one of the noblest structures in Paris and being on high ground, is seen above all others. Luxemburg palace is near by, a great pile built some 300 years ago and used as royal residence till the first revolution, then successively state prison, senate chamber, hall of peers and latterly official residence of the Seine prefect. A collection of modern art and sculpture is here shown. The gardens are very pleasant—groves, fountains, lake, statuary. In summer a band plays three afternoons a week. 'The palace of justice' is close to Notre Dame, dating back 550 years and formerly residence of kings. The waiting-room 250x70 feet is one of the largest in existence. The building was in 1871 fired by the commune, but it had been restored at time of my visit. Near Madeleine church is the grand opera, begun in 1861 and finished 14 years later. It is stated that 400 houses were pulled down to make room for it, the site alone costing \$2,000,000 and the whole business \$12,000,000—enough to erect a modest city. It covers three acres and is of rather peculiar outline. I attempt not the useless task of description. Every country in Europe contributed materials for this gigantic pile, said to surpass everything on earth, tho la Scala at Milan and San Carlo at Naples seat a larger number. The great stairway is the grandest feature—everything unreasonably massive and of the most costly marble. One occupying the farthest point from the stage can scarcely believe the actors to be real persons, looking as they do like dolls or marionettes. It may surprise the reader to be told that the building was erected and is managed by the state. The central market is a vast institution, covering about 20 acres, has 3,200 stalls and was erected at cost of \$8,000,000. The exchange is a massive building of classic mould, 230x160 feet and 98 in height, surrounded by a colonnade of 66 pillars. Opposite is the national library, founded over 500 years ago, considered the oldest and richest in the world, containing (so said) 2,500,000 books, 150,000 mss., 300,000 maps, 200,000 medals. The books and mss. as placed on the shelves would extend 50 miles. The city has many other libraries of no small proportions. In the vicinity is the bank of France, the only one of much account in Paris, with a capital of \$36,000,000. The vaults are vast and complicated. Above the notes and rare valuables is a reservoir of sand in bags, and in case of fire they would be buried deep and secure from damage. Not far off stands a fountain for Moliere, the French Shakespeare who died in the house opposite in 1673. Here took place a famous supper at which Boileau, Lafontaine and

others were guests. Continuing their libations beyond proper limits, they at length concluded to cast themselves into the river. On their way to a suitable spot, the 'father of comedy' suggested that such a sacrifice was worthy of clear noon. To this all consented and when about to part for the night one exclaimed—'Since we've put off drowning till to-morrow, let's go back and finish the wine!'

To south of the river and near the Pantheon is the great bonded warehouse for wines, built 70 years ago, at cost of \$6,000,000 and covering more than 20 acres; some 500,000 casks are usually here, brandy and other spirits being in fire-proof buildings. The annual consumption of wine in Paris is given at 120,000,000 gallons—near 200 quarts per mouth. The zoological gardens are close by and tho inferior to some, will repay a visit. During the siege all animals except the cats (lion, tiger, leopard, &c.) were sold by auction at fabulous prices to be used as food. Monkeys were spared from a suspicion that men and women might be feasting on their ancestors; but a starved monkey would be poor eating anyhow. The flesh of camels, elephants and hippos brought high figures—meat sold from 9 to 45 francs a pound, according as it was donkey neck or elephant trunk. A goose, 230 francs; ham per pound, 50 f.; fresh butter, 80 f.; cheese, 35 f.; an egg 6 f. The town got a thorough clearing of dogs, rats and cats; for tho the latter appeared on no bill-of-fare, all had suspicions where the 30,000 rabbits (exposed at the stalls) were captured. Dogs were quoted without a blush from 20 f. to 200, according to size and species. But an evil is seldom unaccompanied with good, and the siege opened peoples' eyes to the possible quantities of food roaming about with muzzles, howling in back yards at night and hiding in cellars.

South of the river and opposite the Tuileries gardens stood the blackened walls of a palace erected 60 years ago at cost of \$2,260,000, burnt by the commune in 1871 with all its valued contents. The cost is sufficient guarantee of its splendor, and whether or not restored since, I have not learned. Next comes the 'legion of honor palace' erected over a century ago; it was partly destroyed in 1871, but has been restored at cost of \$300,000. Opposite 'place de la Concorde' rises in imposing grandeur the Bourbon palace, now chamber of deputies. Since first built it was enlarged and beautified at cost of several millions. Alongside stands the foreign office, erected in 1845, costing over one million. It is a handsome building and finely sculptured. A short distance south is a large caravansary known as 'des

Invalides, answering to Chelsea hospital, London, built 200 years ago for decayed soldiers. The river front is 660 feet with 120 windows, the grounds (over 30 acres) are surrounded with iron palings and fosse, while an esplanade of 40 acres extends to the river. Inside the gate are 38 brass cannon taken at various times. One is not always eager to find what he's looking for, and after careful search I was pleased that none of them bore the familiar impress of John Bull or his people. The hospital is an interesting old place with many reliefs, statues and pictures of French warriors. The coffin in which the remains of Napoleon were brought from St. Helena is kept here and among the tattered flags suspended in nave of the chapel is one taken from the British at Fontenoy when Cumberland allowed his gallant troops to be routed by Saxe. In the crypt are tombs of over a dozen marshals. Joining the hospital to east is '*des Invalides* church,' a grand memorial pile, with gilt dome and spire 340 feet, a beautiful landmark seen all over the city. In 1861 it was re-gilt by the electro-plating system, costing over \$75,000. Right under the dome is a circular crypt 19 feet deep and 32 in diameter, the walls of polished granite with marble reliefs. Here lie the remains of Napoleon in a tomb made from a block of porphyry over 60 tons in weight. Tho the remains were brought home in 1840 the whole business was not completed till 1861, the cost said to have reached the enormous sum of \$1,800,000, which no doubt included the funeral expense; an extraordinary affair with car 30 feet in height. Everything in this church is marvellously fine, the altar is fairly dazzling, rendered more brilliant by golden light streaming on it through colored glass. Here are the tombs of Jerome Bonaparte and his second wife—his first was Elizabeth Patterson of Baltimore who was meanly repudiated because his people considered her beneath them in station. On the rotunda is the extravagant coloring of Lafosse—St. Louis presenting to Christ the sword used in slaying the infidels. An artesian well in the grounds (dug in 1833-41) is over one-third mile in depth and cost \$20,000. Close at hand is the military school covering more than 20 acres; now a barrack for 6000 troops.

Trocadero palace on rising ground 200 yards from the river opposite Champ de Mar, is a famous pile with dome larger than that of St. Peters. It has two moresque towers 220 feet high, and two wings bending to the river, the whole a quarter mile in length. The great reception hall has room for 5000 persons. Most of the building is taken up with sculpture, antiquities and

works of art. An artificial cascade below the river front falls over 8 stone terraces into a basin, where are colossal bronze figures representing an ox, horse, rhinoceros and elephant. The slope in front is laid out with much taste—trees, lawns, flowers, a winding brook, rustic bridges, &c. An aquarium is among the attractions. The whole cost is given at \$2,500,000. Right across the Seine stands the Eiffel tower, the greatest wonder in Paris.

Across the river from Notre Dame is the city hall, an immense structure spoken of as the finest renaissance building in the world. The former was burnt by the commune in 1871, the present lately finished at cost of nearly \$5,000,000. A few were appointed to fire the pile which they did successfully, not knowing that about 600 of their own crowd were within. At this time the government troops surrounded the house and all were either shot, or perished in the flames. The noted cemetery, Pere la Chaise is on high ground to east of the city—named after a Jesuit confessor of Louis XIV. whose residence occupied the site. It is 110 acres in extent and was opened in 1804, now containing some 50,000 monuments and tombs. Some of these are imposing and handsome—that of Thiers perhaps the most costly. Of the hundred or more distinguished names the following may be familiar to the general reader: Arago, Balzac, Beranger, Champollion, Cherubini, Victor Cousin, David, Denon, Gall, Gay Lussac, Kellerman, Laplace, Lavalette, Ledru Rollin, Marshal MacDonald, Massena, Michelet, Moliere, Marshal Ney, Rossini, Sir Sydney Smith (British admiral), Tallyrand, Thiers, Volney. Opposite the gate is Roquette prison, the Newgate of Paris. Being on high ground, the commune placed heavy guns in position, changed the cemetery Pere la Chaise into a citadel and for three days and nights bombarded the town. Beautiful Paris was draped with smoke, lighted by artillery flashes and conflagration of houses. On May 28th the government troops got possession, when about 3000 rebels were shot and the insurrection finished. The storming of Paris continued one week during which over 50,000 prisoners were taken and some 40,000 were either killed on the ramparts or executed.

The manufacture of gobelins tapestry is one of the sights a stranger usually visits in Paris—established 200 years ago by the eminent Colbert. Tapestry-making is of ancient date—supposed to have been the cunning work in blue, scarlet and purple for decorating the tabernacle in the desert. The business at Paris is owned by the state, the artisans get but small pay, are bound to secrecy and after 20 years receive annuity. The

workman's superiority consists not in quantity but in quality of work; I was told that some pieces of carpet take no less than ten years and are valued at \$20,000. None of the goods are sold, but used for royal palaces and presentation to foreign courts. Tapestry for decoration are copies of famous pictures, usually not large, and always surpass the originals in brightness of color and delicacy of shade. It is of extremely slow growth, the result of a man's yearly industry being only one or two square yards. The warp is arranged perpendicularly, the operator pushes the woof through with a kind of needle, and a flake of bone (like a paper knife) does the work of a reed in weaving. Sitting at the wrong side, he occasionally glances at the other in a small mirror pushed through the warp. Visitors are admitted two days each week. In 1871 the buildings and priceless contents were burnt by the commune. The business has been restored but on smaller scale, the sunshine of royalty being needed for its growth.

Vendome column stands on a paved square of two acres a little north of the Tuileries garden, built in 1806-10 by order of Napoleon to commemorate his victories in 1805. It was intended to be a copy of Trajan's pillar at Rome, is 150 feet high, 13 feet through, the pedestal 20 feet square and 21 in height. The material is stone covered with 425 plates of bronze from 1200 cannon taken in Russia and Austria—weight 900 tons. More than 2000 figures three feet high run along spirally from bottom to top, supposed to represent battles, the victor himself appearing with impossible frequency. On top stands Napoleon 16 feet high, in bronze and Roman toga, looking supremely ridiculous. Three other statues preceded the present, but failing to suit popular taste, they were successively removed. The column takes its name from duke de Vendome whose residence formerly stood on the spot. In 1871 the commune declared the column obnoxious—'a monument of barbarity, a symbol of brute force and false glory,' and decreed its destruction. On May 16th by sinking an anchor in the street, a system of blocks, a windlass, plenty rope, plenty men and the great shaft came down with flying colors—the tricolor of France fluttering from the hand of 'Bony.' Like everything that comes to grief by rapid motion, the column broke in the regulation thousand pieces. In its descent the hero lost his footing and his head—an arm was also among the pieces. To let the imperial droppe down easy a great depth of straw was spread for bedding, yet the pavement was shattered, while adjoining houses suffered by the shock.

The French seldom remain long of one opinion and after examining the prostrate giant enough, they noticed the place looked deserted and strange—it must be put up. Courbet an artist of note was prime mover in the fall, so he was compelled to pay for re-erection. From present appearance no one would discern the monument had suffered wrong.

Two miles east of Vendome and a little north of the river is 'July column,' where stood 400 years the ill-famed Bastile, a place of great strength, surrounded by a fosse 24 feet deep and over 100 wide. It was completed in 1380, first used as fort, then as state prison. By degrees it became a terror to the nation, as none knew when his turn would come. France was swarming with spies whose business was to mingle with people in taverns and note who said a slighting word of the king or inmates of his harem; anyone so indiscreet was shortly called on at midnight and lodged in the Bastile. The unfortunate might write to family or friends but the letter never reached them, whereas any remark on the wrongs he was suffering was sure to be visited by extra tension. Even the wheel and rack were used to extort confessions. Not a few lost their reason, and some were liberated after 30, 40 and even 60 years of this living death. The place was an embodiment of royal tyranny, a disgrace to human nature. On July 14, 1789 the people gathered and resolved to destroy the Bastile. They brought cannon and proposed to reduce it in the event of non-capitulation. The Bastile replied to the assailants so effectively that nearly 100 were slain and many wounded. After three hours the garrison agreed to terms, but on being admitted the crowd butchered the governor and officers and in a few minutes were parading the streets with the obnoxious heads on poles. The Bastile was destroyed and soon as practicable the citizens held a great ball on the spot; and for years July 14th was observed as holiday through the country. The 'July column' was put up to commemorate the revolution of 1830 (July 27, 28, 29) when according to estimate 7000 to 8000 citizens were slain. Of these 504 are buried in vaults beneath, their names cut on the pedestal. The monument is a handsome fluted column of bronze, 160 feet high, 13 feet diameter and standing on a base of white marble. On top is a gilt figure representing liberty.

In a house yet standing near this place lived two centuries ago a woman of remarkable career. Of good family, singularly beautiful, accomplished and clever, with an income of £10,000 a year, Ninon Lenclos, before 20, left the parental roof to pursue

gay and festive courses which she continued beyond her 70th year. During that time she had 50 admirers, among them a father, son and grandson in succession. Of two sons brought up in ignorance of their parentage, one of them became desperately enamored with his mother, and on being told their relationship ended his life right in her presence. She died in 1706, aged 90, retaining much of her beauty till within a little of her death.

Sevres, a little to west of the capital, is widely known for its manufacture of high-class porcelain. Like the gobelin tapestry, it belongs to the state, and a losing concern owing to the high price of its goods. Indeed nothing short of royalty and millionaires can touch them. The place was destroyed in 1871 but has since been restored. St. Cloud palace was near, beautifully placed by the river and facing the sunrise. The palace was built by Mazarin, and afterwards became residence of kings and emperors. Bonaparte was here declared consul in 1799 and in 1830 Charles X. signed a decree to muzzle the press, the act leading to his fall. Stupid man, he might have known that while mind is superior to matter, the pen will whip the sword. At St. Cloud the capitulation of Paris was signed in 1815. In October 1870, the palace was destroyed by shells from Mont Valerien citadel, believing it to be headquarters of the German staff. I saw only its blackened walls, not likely to be rebuilt. The park or forest is intact with the usual attraction of cascades and lakes. The outlook from heights in the vicinity is extremely fine—the winding river with its numerous craft, Paris spread below with its beautiful suburbs. St. Denis, about six miles to north, had been a royal burying-place for 1200 years till at the revolution of 1793 tombs were destroyed and the precious dust scattered. The cathedral is quite fine and in its crypt are statues of nearly all the French kings. St. Germain, 16 miles west of Paris is a quiet place with royal palace which Louis XIV. gave to James II. of England when driven from his country. A forest 30 miles in circuit abounds with sylvan beauty and a terrace a mile long affords a magnificent view. Versailles with about 60,000 people is 12 miles west of the capital, noted for a wonderful palace two miles off. In 1660 Louis XIV. having discovered that he had no place fit to live in, started to build at Versailles. It was no small business either, for it is stated that no less than 20,000 persons were at work part of the time, yet 21 years were required to finish the tremendous pile and fix up surroundings. When the whole was completed and the accounts added, it is said the king fairly shuddered and ordered

them to be burnt lest they rise in judgment against him. In 1681 he 'moved in' and such a house-warming—a succession of fetes and tournaments that associates with Versailles an idea of extravagance and grandeur beyond limit. But pride has usually a fall—during the revolution it was a place for manufacturing arms, and in 1870 it became headquarters for German troops. In what is called 'the court of honor' stands a heroic statue of Louis XIV. made of cannon captured along the Rhine, and by a cruel stroke of irony William of Prussia was here proclaimed emperor of Fatherland. After the Germans left, Versailles was used as chamber of deputies until 1880; it is now a museum of fine arts, its picture galleries requiring 50 minutes to pass through at a brisk pace. As historical collection the 5000 paintings seen here are said to be unrivalled—but they cost \$3,000,000, some say \$5,000,000. The palace shows various styles of architecture for which its quarter mile length gives ample room; while the land it covers (8 acres) would be better employed raising the vulgar onion. I don't attempt description—some of its galleries 600 feet long with extravagant decorations. The park and gardens are on a scale of vastness to suit, peopled with statues, vases, monuments, parterres, fountains. The great fountain plays on alternate sundays from 3 to 5, the larger jets ascending 70 feet. The reservoir is crowded with impossible beasts in bronze, each sending forth a stream when the fountains are active. It is stated that each display costs the town \$2,000. The forest is beautiful with lovely avenues, a good sized lake and rural surprises. Here is the grand Trianon a palace built by Louis XIV. for an elderly sultana (Madame de Maintenon) and fine enough for anything—not small either, one of its rooms being 160 feet. Some 15 rooms are shown; in one of them Louis and his despotic minister (Louvois) plotted destruction of the Palatinate, together with the 'Hugonot atrocities which covered the name of king and minister with infamy and filled with indignation every breast not seared with bigotry and crime.' Here in 1873 Bazaine was tried by court-martial for the surrender of Metz, 'without doing all that duty and honor required, and laying down his arms before an enemy in open field.' He was sentenced to degradation and death, commuted to 20 years in Margurite from which he shortly escaped. His seat and that of d' Aumale (who presided) are shown. Another room contains a malachite vase of extraordinary size, presented to Napoleon by the emperor of Russia after the peace of Tilsit. The bedroom of Josephine has crimson hangings said to be the

finest in France. The small Trianon was built by Louis XV. for a notorious mistress (du Barry) and as might be expected the place had ill reputation. The gardens attached are fine. The state carriages are in a building not far off—seven of them and covered mostly with gold: a carriage used by Napoleon in 1799 when created consul, another used at his coronation in 1804, and a third at his second marriage in 1810 (these are probably the most gorgeous); a carriage used by Josephine on grand occasions; carriage used in 1811 at christening the infant styled 'king of Rome'; carriage built in 1821 for christening of Henri Charles Ferdinand Marie Dieudonné d' Artois, duc de Bordeaux, comte de Chambord, grandson of Charles X. and son of duc de Berri murdered 1820 seven months before the child's birth. The water used was from river Jordan and the ceremony was with great pomp, still 'the child of miracle' failed to leave his mark on the age. Carriage built in 1825 for coronation of Charles X. and used at christening of 'prince imperial' son of Napoleon III.; the weight is put down at seven tons, cost \$200,000. A sedan-chair, several sleds and sets of harness looked equally gay and costly. The contents of that building must have cost several million, now useless except for show and as tangible proof of extravagance and folly. Perhaps no civilized country suffered more from the withering curse of monarchy than France. Most of the kings appeared to consider the state existed for their sole advantage and pursued a career of extravagance bordering on madness. Not only were millions by the thousand spent on regal homes throughout the country, but each favorite mistress must have a palace and subordinate court for herself. No wonder the enshrined dust of St. Denis was scattered abroad at time of the revolution. While money was being spent as if bailed from the sea, those who constituted the state and produced its wealth were dying for bread. The Hebrews when asking for a king were plainly told what would follow, and only three reigns were completed when the nation broke up to be scattered into all lands.

A few words more about Paris. For street cars, small station-houses are at intervals where one gets a number and waits arrival of the bus. The Seine also affords a cheap mode of travel. On Sundays all the boats are crowded and they are so numerous that often six are in sight at once. Some of them are extravagantly gay with carving and bronze. Streets are not infested with boot-blacks, vendors of papers, matches, laces, &c., as in British cities. Newspapers are sold by women in gay

little kiosks along the boulevards and a daily, called 'the little Journal,' claims to have the largest circulation this side of Jupiter—950,000. During the exhibition it had a paper-making machine and press going every day in machinery hall; and as the web came off, it was printed and handed round at rate of several hundred per minute. I noticed one street enterprise here that I saw not elsewhere: a man carries on his back a tall tin receptacle holding 6 to 8 gallons with a tap each side from which steaming hot tea or coffee came out as might be desired. A spirit lamp inside did the business. In places one sees half the sidewalk littered with cheap goods, the owners standing about; if their profits are small they pay no shop-rent. The vendors of old books display their motley stores on the river parapet, extending at least a mile. Many of the stores are large and handsome; that known as 'bon marche' is five or six storeys, occupies a square and seen at night is quite dazzling. A range of stores along rue Rivoli are also large and brilliant. The city has seven railway stations of good size tho bearing no comparison to those of London. The hotels are given at 8500 with a greater number of pensions. Outside of hotels are usually a number of small tables where persons drink or eat whatever their inward consciousness may crave. Besides spirits, wine and beer, drinks in endless variety are forthcoming. While people seem happy to dissipation, there is no loud talk and not the least sign of being moved by the imbibed refection. The air is balmy, lights are brilliant and no wonder the business continues till noon of night—at least on occasions. Round one block with three hotels I counted 112 of these tables; and but few were empty; cafes on parks and squares are supplied in like manner. In other parts the pursuit of pleasure is only a minor concern; here it seems to be chief business—life a daily picnic, the air always bright and surroundings pleasant. On Sabbath work goes on like other days, stores are open except a few and these have notices stating they are closed on fete and Sunday, when all except laboring people calculate on some kind of outing. Those who cater for the public offer special inducements—dancing halls open, circus performance, bands at work, baloon ascensions, open-air theaters, excursions and picnics.

On September 12th I leave for Britain—distance to Rouen 87 miles, thence to Dieppe 57. The scenery is good most of the way; the river in its windings is frequently crossed, adding variety to the scene. The valley is three or four miles wide, carefully tilled, the sides clothed with orchards and vine.

Several sections of forest are passed; people are digging potatoes, gathering grapes and other fruit. There is no hedge or dyke, cattle are often kept on tether and a common arrangement is for a girl or woman to hold two or three tethers (a few yards long) while the animals are feeding. Besides attending to her bucolic charge, the girl is constantly knitting. The peasantry are industrious, and seldom fired by ambition, are easily managed. Between church and state, they are severely ground with taxes. Rouen with 110,000 people, is along the Seine 74 miles from its mouth and of old the capital of Normandy. It takes first rank in the country for cotton manufacture, the yearly output rated at \$15,000,000. Revoking the edict of Nantes in 1685 gave the place a severe put-back, reducing the population from 80,000 to about a quarter of that figure. Newer parts are quite fine, other portions extremely quaint and ancient in appearance. Several of its churches are large and noted. The cathedral has a cast-iron steeple 480 feet, erected in 1876 to replace a wooden belfrey destroyed by lightning in 1822, after long service. The tombs of Richard Cour de Lion and of Rollo first duke of Normandy are in the choir. St. Ouen is about as large and much finer, with an extraordinary altar, shown at the Paris exhibition. Both churches are nearly 500 feet long, the latter 110 feet in height of nave with 120 windows of fine stained glass. As in Dijon, several old churches have been turned to stables and coach-houses. The place has museums of paintings and ancient things. During the Franco-Prussian war several battles took place near by. The scenery for some distance after leaving Rouen is attractive—wooded hills, fine residences and lovely valleys, but the enjoyment is marred by frequent cuttings and tunnels. This is Normandy, at one time belonging to England, finally lost in 1450. Before reaching Dieppe the track runs through a continuous orchard for about 10 miles—apples, pear and plum all ready for picking. Old hamlets, each with an ancient temple; thatched houses hiding under trees, flowers climbing the walls, a stream winding in loops and bends as it reluctant to quit the peaceful valley. In May and June the conditions were yet more attractive; trees a mass of blossom perfuming the air, the stream decked with wild flowers of brightest hue, the varied song of birds, the drone of happy bees, an occasional cow lying in shade or standing in the brook. What a place to reform evil-doers! One's very thoughts entangled among bees and flowers. Life an acted poem, surpassing in rural bliss the fabled home of Arcadian shepherds.

We are now at Dieppe, a seaport with 21,000 people and looking as if its best days were past. Like Rouen it suffered much by revoking the edict of Nantes, and it was shattered in 1694 and 1803 by English fleets. At Dieppe embarked the first French emigrants to this country. The cliffs along shore are of chalk and the water milky in color. The distance across to Newhaven is 76 miles; time, four or five hours; paddle steamers size of the S. N. Company's boat 'Princess.' The water is constantly in motion whether it has occasion or not and the five times I crossed, nearly all passengers wore a serious expression. The Dover route (60 miles to north) is 22 miles and adopted by those afraid of Neptune. But Newhaven route has much finer scenery by land, besides a consideration of greater weight with some (myself among them)—the fare is cheaper. When nearing Albyn, Beachy Head becomes a fine object, a chalk cliff 560 feet high, clear white as recent snow. Newhaven is a village of some 2500 with artificial harbor and one of the spots where John Bull examines baggage. I arrived in London at night, time from Paris 10 to 12 hours.

About a dozen miles west of Newhaven is Brighton, a famous watering-place and on the way that part of Sussex called 'the Downs' is passed, noted for its excellence of sheep. The country consists of rounded hills, nearly all pasture, so smooth and even as if covered with cloth. The subsoil is chalk with a thin covering of earth. Brighton seems to have been brought into notice by George IV. when prince regent, who built here an odd-looking pavilion with domes, cupolas and minarets. This with the grounds was bought by the corporation some 50 years ago as a popular attraction. The town rises pleasantly from the water, its population well on to 150,000, all supported by tourists. In summer the air is cool, in autumn and winter mild for that country; with rich Londoners it is therefore in high repute. A magnificent asphalt terrace or parade with fine metal railing extends along the water three miles; seats and chairs in abundance. Two piers extend out 400 yards affording fine promenades. Pleasure boats of various sizes and gay with bunting are dancing on the water to accommodate those who love the deep. The place is swarming with coaches, wagnettes, bath-chairs and traps. Tho in May, the place was well filled, all ages and conditions—the pomp and circumstance with those evidently not so flush of money. Gay flags were numerous, dashing and playing in a pleasant breeze off the water. Brighton has many large, expensive hotels, like pleasure

resorts in all lands. St. Paul's church (Episcopal) is covered outside with pieces of flint, embedded in cement, looking quite attractive. Inside was a bronze lectern, nickel-plated, made in Birmingham and said to have cost \$5,000. Candles were burning and a large cross in front of the altar was dotted with garnets and other stone. Probably the greatest attraction of Brighton is an aquarium 700 feet with over 50 tanks, rated the best in Europe. An aquarium I may inform the young reader is a place where different kinds of fish are kept in their proper home—the water. Let a boy fancy himself going down into a cellar, then walking along a stone floor between walls of glass; these immense panes an inch or two thick are the fronts of tanks filled with water and containing different varieties of fish—trout, eels, lobsters, seals, &c. It would not do to have them together, as the larger and swifter would soon use the smaller ones for dinner. Water in the tanks is being constantly changed or the occupants would not flourish. From here to London is 50 miles, and tho interesting enough, calls for no special mention.

London, 60 miles up the Thames is in $51\frac{1}{2}$ north latitude, five degrees north of P. E. Island and in about the same parallel as south Labrador. Speaking with legal exactness London city covers but a square mile, likely enough in the long-ago surrounded by ramparts. The night population is 70,000 to 80,000, mostly persons in charge of public offices and warehouses; during the day they probably exceed a million. The population of 'greater London' or the city police district is over 5,500,000; no doubt the largest city at present, or in the past. For postal convenience it is divided into seven sections, the initials of names only being used. By adding these to an address security is increased and the labor of sorting lessened. Postal arrangements are wonderfully complete and a letter if properly mailed has small chance of escape. In the central parts delivery is 12 times a day and half as frequent in remoter sections. The main lines, in Paris named boulevards, in New York avenues, are here called roads, being the roads formerly leading to and from the city. Between these shorter streets run in hopeless confusion of twists and angles, making London a most difficult place to manage. It is not easy to tell the city's extent with exactness, tho the extreme diameter is placed at 20 miles and the area about four leagues square. The Thames (300 to 400 yards) winds through from west to east having 13 bridges with 5 others for railway use; it is considered that no stream in the

world is spanned by so many magnificent and costly structures. London bridge is farthest down with fully one-third the city below, and is at certain times so crowded that it requires push and daring to attempt a passage. Remedial schemes have been offered but all are hedged with difficulties that refuse to submit. There are numerous ferries farther down; but for so short a distance ferries are too slow and awkward.

London is well supplied with parks: the principal are Hyde, Regent, Battersea, St. James, Victoria park and many others. There are scores perhaps hundreds from two to eight acres, in front of private houses, handsome with trees and flowers. Even several streets are private and closed by gates at night. Hyde park is about 600 acres, nearly two miles long, the greater part a common and pasture for sheep. The western part (known as Kensington gardens) is nicely wooded, with avenues, walks, drives and artificial basin, much used for toy-boats in summer and skating in winter. Seats are in shady places and a band plays twice a week. Along the west is Kensington palace a severely plain brick house but rich and ornate inside. It is residence of the prince and princess of Teck; was also the birth-place and early home of Victoria, and here in 1837 she held first council on becoming queen. Along the south margin is Rotten-row, mentioned in early part of these rambles. At south-east corner is the marble arch, a really handsome structure, and across the street (Piccadilly) is a fine equestrian statue of Wellington, who lived in the opposite house. Green park (about 80 acres) is to south and in its south limit is Buckingham palace; to east is St. James' park, 60 acres and about half lake, beautiful as trees and flowers can make it. In the angle between St. James and Green parks is St. James' palace, scarcely used at all of late. In the quarter mile between the park and river are Westminster abbey, houses of parliament, foreign office, Indian office, Downing street, treasury, horse guards, whitehall, and a little further east, Charing-cross, Trafalgar square and national gallery. What spot so piled up with noble buildings and varied interests? Regent park is well to north of the city, nearly round, 450 acres with a common of 100 acres to north. A magnificent avenue extends from south to north with ramparts of the most lovely flowers, parterres and vases. It is a favorite resort on Sundays, and numerous phases of thought are proposed and developed. Here on a table or stand successive speakers preach communism to a group of listeners; 50 yards off orators declare the beauties of infidelity and revile

the Christian religion to the lowest depth; on a neighboring stool or box a person is defending the orthodox faith and giving heavy thrusts to disciples of Paine and Gibbon, the audience sometimes moving from one stand to the other. At little distance a company of Germans are holding prayer meeting, and one is struck with the excellent attention, the grave and interested look of their serious countenance. Others are rolling on the grass or acting such games as suit their fancy. The inner circle (some 20 acres in extent) constitutes the royal botanic gardens, formed in 1839 by charter to several peers, the lease terminating in 1901. The ground (an exact circle) is diversified by hill, dale, rural retreat, stream, lake with swans and other fowl, rustic bridges, tree limbs trailing in water, pavilions, improvised turret, great elm and chestnut trees—altogether a delightful spot. The conservatory will hold about 2000 persons, trellaced with vine and hanging plants. Another glass-house contained a specimen of Peru cactus over 20 feet high, the stem about four feet thick; agave or American aloë; date palm 24 feet high; a kind of flax 12 feet high and a foot broad; oranges nearly ripe. In tropic-America and Indian section the thermometer stood at 90°, the air choking with damp. The Victoria-regia water-lily was principal object here, leaves floating on surface, perfectly round, 6 feet across, edges turning up three inches, upper side green, under surface deep purple or violet. The leaf will bear up a child, so an attendant informed me. The flower is larger than a tea-cup, pale pink, very fragrant and lasting for two days. Specimen of banana or travellers' tree about 20 high; bamboo cane, Newzealand fern, &c. In a bed outside I was pleased to meet an old acquaintance in great pomp, with sounding title and receiving careful attention, in Canada considered an arrant rogue, thriving in burnt land and called 'fire-weed.' I saw it in equal esteem at the botanic gardens in Edinburg. Part of the keeper's lodge is fitted for lecture hall, has a library and collection of insects—butterflies of incredible beauty, 6 to 9 inches in spread of wing; beetles 4 inches long and stout in proportion; dragon-flies 8 inches; tarantulas 5 inches in spread of claws and dangerous when living. I was present at a flower show held in a small valley roofed with canvas, the place crowded with blooms rare and costly. Two military bands played from 5 to 7 and the afternoon passed like a pleasant dream. Three yearly exhibitions are also held from about 9 till midnight—grand affairs at which royalty is present. At my first visit the grounds were being put in order for one of those reunions; walks were over-

spread with canvas in case of rain, while thousands of lamps were ranged like beads. The society is high-toned—membership costing 10 guineas, fellowship 25 guineas, besides fees and conditions.

The zoological gardens in north of the park is one of the sights. The business was started early this century and the collection is rated among the best known. The grounds (about 18 acres) are pleasantly diversified by ponds, flower-beds, walks and terrace with over 20 houses, several 200 feet long. On entering, the reptile house is first reached; along the inner walls are perhaps 100 compartments with glass fronts. To right are ranged the harmless species of serpent, the venomous to left and the large ones in front. A specimen of anaconda (largest in the collection), the keeper informed me, was 24 feet long and 18 inches round the waist, boas and pythons but little inferior. A large tank in the center contained some half-dozen crocodiles from 7 to 9 feet, two smaller tanks for water-tortoise and crocodiles of less stature. Frogs in variety, and some of monstrous bigness. The temperature has to be well up and great tropical plants are growing in tubs and boxes. Let birds come next. The bower bird is an Australian, with peculiar and interesting habits; before nest-building it forms an arbor of twigs, ornamented with feathers, shells, bones and anything white or shining. Here they will play and chase each other for hours—nest-building and resulting cares follow later. The laughing kingfisher is another Australian, not a fisher at all, as it lives on mice. Its note resembles exactly a rude boisterous laugh, that may be heard a good distance. Over 60 species of parakeets and 21 species of pigeon find a home in Australia. No specimen of ostrich was in the gardens, but the rhea, cassowary and emu are not small birds, being 5 to 6 feet in height. The flamingo is remarkable in shape and color; less in size than a goose, an extraordinary development of legs and neck gives it a stature of 5 feet. It is white with black pinions and wing-coverts red. When not at work it stands on one leg, head under wing, its two-foot neck twisted in form of 8 and having small resemblance to a bird when seen at little distance. For nest it builds a cone some 30 inches high, incubation being performed in standing posture. The mandarin duck so much esteemed in China, is a neat, tidy little chap. Some of the pheasant tribe are extravagantly handsome. The argus pheasant (found in Malacca, Borneo, &c.) has two central tail-feathers about 6 feet long, the secondary quill feathers of wings three feet, adorned with beautiful spots;

The brush turkey is another Australian of great interest owing to its artificial mode of hatching. The male bird raises a mound of leaves and rubbish to about four feet; here the eggs are placed (small ends down) and covered, the generated heat being sufficient to hatch them. After the young ones come out they are covered up in the mound at nights till able to fly. Parrots, cockatoos and toucans have a house to themselves, 300 of them representing about 90 varieties, from the size of sparrows to that of turkeys. The smaller members are in cages along the sides, the cockatoos and great macaws are in a central enclosure. Some of these giant birds are pure white, others scarlet, blue, green and pink, while not a few show all these colors. They are terribly fierce and with their strong bills will cut through any garment that comes within reach. Their voice is extremely loud and harsh, while 100 or more screaming in concert produce a noise, well described as frightful. No feebler note than a locomotive whistle could be heard among them. The great toucan notwithstanding its monstrous bill, yields to none in metallic splendor; the bird of paradise is a marvel of beauty, its appearance familiar to most by pictures. Storks and adjutants with 18-inch bills and legs four feet long, often reduce their height two feet by a kneeling posture. The crown pigeon is a lovely bird with white-tipped vane surmounting its crest. Swans, white, black and gray, also white with black neck. Pelicans twice the size of a goose, short legs and immense bills two feet in length. Then birds of prey—eagles, vultures, condors, the latter seldom reaching 12 feet in spread of wing. The monkey house has probably 200 simians, from the size of a mouse to that of a medium dog. The smaller varieties are in cages round the walls, the superior class in a central enclosure. They are supplied with swings and ropes, and their numberless antics are amusing to the last degree. Some grunt like pigs, others whistle like birds. The lion house is 200x70 feet, with 14 dens along one side, the largest 12x20 feet, smallest 12x12. Lions, tigers, leopards, jaguars and pumas—in all probably 20. They are fed once a day at 4 on rather scanty fare of goat and horse; tho famished with hunger they seem in no hurry, take the carrion between their paws, lick it over quietly and in the coolest manner finish the repast. When the bones are picked and the parties have toasted each other in water, one will perhaps offer remark to which all reply till they make that brick house tremble. I was surprised to note that an able-bodied tiger is little inferior in voice to the forest king. Were all the prison

bars removed, what a frolic—bears, lions, eagles and great serpents all rushing to get the sweetest bite. Of 80 species of antelope known to science, about a dozen kinds are represented in the gardens. The bescia antelope is very handsome with long, straight tapering horns; the eland (6 feet high at shoulder), weighing from 1600 to 2000 pounds, is really an immense beast. Both are found in British India and South Africa. The gnu is a peculiar member of the antelope tribe; and the gazelle, small, timid and easily tamed, is of the family. Deer are numerous in kind and about 20 varieties have their home in the gardens. The wapiti belongs to North America, is of large size with immense antlers. A pair shed in the park weighed 32 pounds, and at foot of the Rockies a pair set up point to point allowed a tall man to pass without touching. The Japanese and mule deer are beautiful animals with intelligent looks. Specimens of all known bears are in the gardens; polar bears are the largest, being nearly the size of horses. The capture of one is recorded which weighed 1600 pounds and measured $8\frac{1}{2}$ feet in length. Some of the black and brown varieties are but little inferior. A pair of cinnamon bears presented by the Hudson-Bay company, lived 20 and 25 years in the grounds. The bear-pit is favorite place with children and the occupants get many buns and dainties. Bears, like hogs, tho they accept inferior fare, have keen appreciation of anything toothsome. The society has four elephants—two African and two Asiatic. At certain hours each day they are saddled with a kind of family pew holding less than a dozen in which children and others take short pleasure trips. Camels are also brought out fully caparisoned, but the desert ship receives less attention. In 1850 the first living hippopotamus since the tertiary period was brought to England—a second came three years later. Both passed away long ago, leaving the pair on view at present. The hippo approaches an elephant in length and bulk, but owing to very short legs, is no taller than a stalwart ox. In countenance and form it is by no means attractive. In the house and yard are enormous tanks in which most of its time is spent. The rhinoceros is less in size, has one or two horns on its nose, quite inoffensive, with small claim to personal beauty. Its skin is rough, dark and apparently made for a much larger fellow. Three specimens are now in the gardens, one procured in 1868 being the first seen in Europe since Roman times. From constantly receiving donations of various kinds those huge beasts (rhinoceros, elephant and hippos) are sociable as dogs and open their mouths

wide on perceiving any favors forthcoming—the poorest marksman could hardly miss these great caverns. The first giraffe was brought to England in 1829, a present from Mehemet Ali to George IV., but it was short-lived. Two were afterwards secured and before the female died in 1852 seven young ones were produced. The stock now consists of two, and they do not appear healthy: their natural fare being green leaves, they seem not to thrive on home forage. In some respects giraffe are the most extraordinary animals on show, the tallest reaching 20 feet and able comfortably to feed from a third story window. They are inoffensive as lambs, and always begging for leafy branches. The wild ass or zebra is beautiful but fierce and untamable; the quagga resembles it much in appearance. Some of the Indian cattle are of enormous size, others of singular shape. The zebu has a fatty hump on its withers and exaggerated dewlap under its neck. The sacred Brahmin bull belongs to this variety; yet they are also used for draft and riding. The sea-lion is an active intelligent amphibian resembling a seal, but much larger. The specimen on show has been taught a variety of tricks. But time would fail to speak of wild boar, tapirs, kangaroo, porcupine, prairie dogs and a thousand others. Heard from outside, the noises produced sometimes are singular, if not ludicrous—birds and beasts each speaking in its own language and loud at that. We are at length done of Regent park, after stating that in its north side are comfortably located a Baptist college and grounds.

Let me next refer to Kew gardens, 6 or 7 miles up river and easily reached by train or tram-car. The grounds are 75 acres with adjoining park of 240, containing it is thought the finest collection anywhere. Well-kept lawns, lovely walks shaded by giant cedars, beech, elm and oak, flower-beds, shrubs and bushes, greenhouses of varied heat ablaze with floral beauty, artificial lake and fountain sending up water, Chinese pagoda 200 feet high—everything in best condition. The gardens are kept up at public expense and all may come in free every day in the week. The oval palm-house, 360x90 feet, next to the crystal palace, is considered the largest of glass houses. Here are tropical plants flourishing in heat and moisture suited to their wants; palms from India, tree-ferns from Australia, giant cactus from central America and a palmetto with leafstalks 30 feet long. Two splendid palms (20 inches thick) had their growth stopped years ago by the glass roof 65 feet from the floor, the stalks of their great leaves over 20 feet long; a tree-fern from Australia its

trunk 9 feet high, 3 feet round with tuft of ferns 12 feet long growing from its top; a slender shaft 16 feet tall with tuft of beautiful leaves, 8 to 10 feet long; a kind of reed 40 feet high, smooth green stem three inches across, looking exactly like a spear of green wheat; cocoanut palm with leaves 20 feet long; handsome leaves 15x30 inches, stalks 18 feet growing from a stump two feet across; umbrella and fan palms very beautiful; great tree-cactus and giant ferns in variety. Several promenade galleries are at various heights, allowing closer view of the colossal plants. In the garden are two valuable museums, one with specimens of wood, bark and twigs, their extracts and products preserved in glass. A bit of maple was stuck up in great pomp with high-sounding title (*acer saccharinum*) and in a glass beside a bit of maple sugar. Among some vegetable curiosities is a cast of the rafflesian, considered the colossus of flowers, 36 inches across, the nectary capable of holding a gallon. It was discovered in 1818 by Sir Stamford Raffles (really by his native guide) in the jungles of Sumatra. The flower is of dull, pale flesh-color and emits a disagreeable odor. The other museum contains samples of wood for use—many showing splendid polish. Australia and New Zealand appear to advantage, woods from the former are made into a large table-top of 70 pieces—a really magnificent trophy. A bamboo cane 90 feet long and 4 inches through, the large end must have been cut for a giant fisher; a section of bark 24 inches thick; cedar-of-Lebanon plank $4\frac{1}{2}$ feet broad, age 113 years and grown in the gardens; piece of pine from British Columbia, $7\frac{1}{2}$ feet across; section of jarrah wood from Australia 13 feet long, 5 feet through, weighing $4\frac{3}{4}$ tons, dark wine color, takes polish like metal and is proof against time or insect. The beech tree grows well in Britain, its lower limbs often trailing on the ground, and of this peculiarity the gardens afford a good sample. The parent tree is quite large, its pendent limbs on reaching the ground took root and from them are growing about 40 young trees of stovepipe bigness. When in leaf the whole forms a green jungle about 90 yards in circuit and surrounded by a defense of sharp iron pickets. Several Lebanon cedars are flourishing in the grounds.

Now some notice of public buildings. St. Paul's cathedral ranking among the world's great churches, stands a quarter mile north of the river and half mile west of the bank and exchange. It is the fifth church that stood here, the former (called old St. Paul) was 690 feet long, 130 wide, covered $3\frac{1}{2}$ acres, spire 520 feet, destroyed in the great fire of 1666. After removing 47,000

loads of rubbish the present church was begun in 1675 and finished in 35 years, Sir Christopher Wren architect. It is 500 feet long, covers two acres, the cross surmounting its central dome rising 360 feet, with two end towers 220—cost \$3,730,000. At base of the rotunda is the whispering gallery, a continuous seat round with railing in front. The audience seated, place their ears to the wall, a verger at the opposite side whispers softly and tho 140 feet away is heard in rather loud voice. He did not sing 'grandfather's clock' or 'old dog Tray,' but gave statistics about the church, and while he was performing I lifted my voice in a whisper that might be heard 8 inches and said—'Old verger! your little piece is well recited.' For this pleasant remark he thanked me not, but replied tartly—'Oh! stop, stop or I can't finish.' So he began afresh and went through without interruption—I wished to ascertain if the verger could hear from our side. What is called the stone gallery is round the dome, over 200 feet from bottom; 60 feet higher is the golden gallery, and visitors can ascend to a ball under the cross for 36 cents. But the abominable smoke intercepts the view from either point. 'Great Paul' weighs over 16 tons, 9 feet high, 9½ across the mouth, thickness of metal 18 inches, weight of clapper 450 pounds, heard 20 miles under good conditions. Another bell weighs nearly 6 tons, with clapper 180 pounds, used at death of royalty, archbishops &c; the hours are struck with a hammer falling by its own weight. The clock has a face to south and west, each nearly 20 feet across, minute-hand 9½ feet, weight 75 pounds, hour figures over two feet long; pendulum 16 feet, weight at bottom 108 pounds; makes 30 beats per minute. The interior is bare, and tho not so crowded with marble as the abbey, has over 70 monuments, statues and tablets mostly of naval and military heroes. The following are a few of the most noted: Wellington, Nelson, Duncan, Howe, Rodney, Sir John Moore, general Picton, Abercromby, Capt. Cook, Collingwood, Sir Henry Lawrence, Cornwallis, Earl St. Vincent, Cadogan, general Gordon, Sir Andrew Hay, three Napiers (admiral and two generals), Hardinge, John Howard, Hallam, Bishop Heber, Samuel Johnson, Sir Wm. Jones, Dean Millman, Sir Pultney Malcolm, Sir C. Wren, Sir Wm. Ponsoby, Sir Astley Cooper. At end of the nave is a monument to officers of the Coldstream guard who fell at the Crimea, with the following inscription: 'Sacred to the memory of Lieut.-Col. T. Vesey Dawson, Lieut.-Col. J. Murray Cowell, Capt. Lionel Mackinnon, Capt. Granville C. Elliot, Capt. M. Bouverie, Capt. Fred. H. Rams-

den, Lieut. E. A. Disbrowe, Lieut. C. H. Greville, who fell at Inkerman Nov. 5th, 1854. Brothers in arms, in glory and in death, one tomb contains your ashes.' In a recess are two great brass tablets with names of captain, 49 officers, 402 men and boys who perished off Cape Finisterre in 1870. The crypt (supported by great pillars 40 feet square) contains the ashes of not a few 'illustrious dead.' The remains of Wellington are here—first enclosed in a pine coffin, then in lead, then English oak, then Spanish mahogany covered with crimson velvet; then a porphyry tomb weighing over 17 tons and about 12 feet in height. At west end of the crypt is the funeral car in which the body was conveyed to the cathedral, drawn by 12 black horses. It is really an immense affair, cast from 1200 cannon taken at various battles, is about 20 feet high, over 30 feet long, cost of work \$64,000. The funeral took place in November 18, 1852. In center of the crypt is the tomb of Nelson, black marble surmounted with coronet and cushion, the inscription—HORATIO VISCOUNT NELSON. The funeral (on January 9, 1806) was a great day in London. The body was taken from Whitehall (where it had lain in state) the King, Lord Mayor, Lords of the admiralty, princes, nobles, prelates and civic companies in procession through packed streets. Hardy (Nelson's post-captain) and 48 tars from the 'Victory' surrounded the body, while a detachment of Abercromby's Highlanders kept back the crowd. When the coffin (of wood from the enemy's ship) was being lowered, the grand Episcopal service for the dead being uttered, organ peals moaning and dying amid groined arches, the boom of minute guns from the Tower a mile off—a great sob like a surge of ocean went up from the thousands who filled the vast temple. On seeing the old flag of victory descending about the coffin the tars rushed forward and each secured what he could of the darling relic. Collingwood and Northesk, his Trafalgar captains, were in due course laid each side. In 1859 the remains of general Picton, first interred near St. Martin's, were placed here, adding another to this home of illustrious dead. If the abbey has a 'poet's corner,' in a part of this crypt is a valhalla of architects and painters: Sir Christopher Wren, Reynolds, Opie, West, Lawrence, Landseer and others. A space about the cathedral is known as 'St. Paul's churchyard,' a street to north, Paternoster-row—in former times a noted book-mart. Here is chapter-house, behind it 'Amen corner' and close by, Stationers-hall with its registry of copy-right publications.

The noted fane Westminster abbey stands 250 yards north

of the river and two miles west of St. Paul's, from which circumstance its name is derived. Minster was an old word for cathedral and the abbey being west of St. Paul's, nothing more convenient than to name it west minster. Indeed a section of the city round it (with population of some 300,000) goes by the same name. Setting legend aside, the first church here was built by Edward the Confessor over 800 years ago, that now standing dates from reign of Henry III., about 650 years before our time. It is different in style from St. Paul's, about 400 feet long and covers less than an acre; its ceiling rises 100 feet and two end towers 220. It is a princely building, but one is generally so absorbed in the contents as to neglect architectural beauty. In it are buried 13 crowned heads, the whole number of busts, monuments and tablets exceeding 500. To east end is the chapel of Henry VII., 100 feet long, 70 in height and width, built less than 400 years ago as mortuary for royal people, and said to have cost \$1,250,000 of our money. The great end window is 45 feet high, 31 feet broad; the ceiling of stone is a miracle of carved work, admitted to be without rival in any land. The gates entering from the abbey are of brass and wonderfully wrought; the stalls with gothic canopies are overhung with banners, swords and helmets of knights. The tomb of its founder is in a curious chantry of cast brass, a work of rare beauty, the king and queen represented lying in robes of state. In another part is the lofty and magnificent tomb of queen Elizabeth, Mary queen of Scots has another of much the same style, erected by her son James I. A monument to lady Margaret Douglas shows her to be well connected; her grand and great-grand-father were Henry VII. and Edward IV.; her uncle was Henry VIII., her brother James V. of Scotland, her cousin Edward VI., her son Henry I. of Scotland, grandson James I. of England, her mother Margaret queen of Scots, her aunt Mary queen of France, her cousins Mary and Elizabeth queens of England, her niece and daughter-in-law Mary queen of Scots, her husband was earl Lennox, and her son the unfortunate Darnley—so says the inscription and much more. Queen Mary was interred here with due honors. The remains of Cromwell, four children and six officers were removed at the restoration—an act of malice which shows the meanness of crowned heads. In the royal vault are buried Charles II., William III. and Mary his queen, also queen Anne. Another vault built by George II. for the Hanover line has not been used lately and several bodies were removed from it to St. George chapel at Windsor. Among

other noted interments are—Dean Stanley, Joseph Addison, John Campbell duke of Argyle, James I., Prince Rupert, Ann Hyde (first wife of James II.) and ten infant children, Ann of Gloucester and 17 infant children. On returning to the abbey we come to an elevated enclosure known as chapel of 'Edward the Confessor' who died in 1065, last of the Saxon kings. He seems to have been a person of weak mind, abnormally superstitious, canonized in 1163—the only British king who received that attention. His shrine or tomb was built by Henry III. in 1269; originally very ornate, it has during centuries been defaced by devotees who desired a crumb of so holy a relic. In this enclosure are interred 6 kings, 5 queens and several royal bloods. The tomb of Edward I., who died 1307, was opened in 1774 and the account says his body was perfect, having two robes, one of gold and silver tissue, the other crimson velvet, a scepter in each hand, jewelled crown on head. In this chapel are two coronation chairs, one made for Mary II. (queen of William III.) 200 years ago, another for the 'stone of destiny' when Edward I. brought it from Scotland 600 years ago. These chairs are not much to look at and for daily use would have small value; but they perform important functions for all that. At coronations they are covered with gold tissue and placed before the altar; the candidate for regal honors sits on the rock-bottomed one; his or her consort occupies the other. The stone in question looks to be 9 inches thick and 16 to 18 wide, of dark non-committal hue and doubtful material. A number of childish legends are related about its having been part of Abel's altar; a pillow for Jacob, making a trip to Mizraim, a residence in Spain, a sojourn in Carthage, then a skirmish to Ireland and miraculous voyage to Scotland—belief in which might be pardonable a millenium ago, but pitiable at present. The idea of sending abroad heralds to dispel mental darkness while at home they revere a worthless rock whose claim to notoriety rests on monkish tradition established centuries before people gave up faith in fairies and ghosts—has to say the least an appearance of freshness. But a belief in the divine right of kings requires equal vigor of fancy—and we pass on.

In the chapel of St. John is a monument (erected by brother officers) to Lieut.-Col. Charles MacLeod who fell at siege of Badajos at the age of 26. A splendid monument represents general Wolfe falling at siege of Quebec. A singular group records the death of Joseph Nightingale and wife who died 150 years ago—she at 27, he at 56. The marble (on a platform three

feet high) represents a lady in screeching terror, throwing her arms wildly, and death in form of a grinning skeleton issuing from a dark cave and aiming a dart at her breast, while the husband has one arm round her and with the other striving to ward off the fatal shaft. It is a comical design for such a place. Sir Rowland Hill, James Watts, Sir H. Davy, Sir James Y. Simpson are remembered in marble, and well they deserve the honor. Sir John Franklin born in England 1786, died in the frozen north 1847—this monument was erected by his widow who after long waiting and often sending in search of him, departed herself to seek her beloved in realms of light, July 18, 1875, aged 83. A monument records the death of Captain Kempenfelt, lost in the 'Royal George,' sunk at Spithead, August 19, 1782 with about 900 on board. In the north transept are monuments to Sir Robert Peel, Sir Peter Warren (vice-admiral), earl Beaconsfield, Sir John Malcolm, admirals Vernon, Wager, William Pitt, Lord Palmerston, Marquis of Londonderry, Canning, Wilberforce, Fox, Grattan, Judge Mansfield. A bust to memory of George Gordon earl of Aberdeen, who died in 1818; a bust to Richard Cobden; a stained window commemorates the loss of H. M. S. 'Captain' in Sept. 7, 1870, when captains Burgoyne and Coles with 49 officers and 402 men perished off Cape Finisterre. Monument to Richard Kane (born in Down, Ireland, 1666). In the north aisle are monuments to Charles Darwin, John Hunter, Sir Charles Lyell, general Lawrence, DeCourcey baron of Kinsale, descendant of John de Courcey earl of Ulster, who (about 700 years ago) obtained for himself and his heirs the extraordinary privilege of standing covered before the king. A fine bust of Sir James MacIntosh, a distinguished man of his time; a bust of Zachary MacAulay; a grand monument to Sir Isaac Newton, and near by the tomb of Sir John Herschel; also tombs of two noted engineers Robert Stephenson and Sir Charles Barry. Next a granite tomb over the remains of Colin Campbell (Lord Clyde) who died 1863, aged 70; in the nave is a large marble slab with the following—'Brought by faithful hands over land and sea, here rests David Livingstone, missionary, traveller, philanthropist; a tall pyramid records the bravery of admiral Hardy, the friend of Nelson. Richard Tyrrel an admiral of merit has for monument a piece of rock with inscription—'The sea shall give up its dead and every one shall be rewarded according to his works.' A monument erected by the east Indian company to Sir Eyre Coote; a bust of Canon Kingsley; a statue of Wordsworth, also of William

Congreve monument to general Outram; under the bust is shown in relief Lord Clyde and Outram shaking hands, general Havelock close by—companions in arms during the Indian mutiny. On a moulded base stands a sarcophagus with inscription to memory of Major John Andre who was caught within the American lines and put to death Oct. 2, 1780, age 29 years. His remains were placed here in 1821. White marble monument to Isaac Watts, 1674—1748; monument to Sir Cloudsley Shovel, distinguished admiral lost at sea in 1707. We are now at the south transept, usually referred to as 'the poets' corner,' thickly peopled with busts, monuments and statues—here they are: Isaac Barrow, Joseph Addison, Lord MacAulay, Thackeray, Handel, Goldsmith, Dickens, Sheridan, Garrick, Samuel Johnson, Gay, Shakspeare monument and statue, and on a scroll these lines from 'the tempest'—

The cloud-capped towers, the gorgeous palaces,
The solemn temples, the great globe itself,
Yea all which it inherits shall dissolve,
And like the baseless fabric of a vision
Leave not a wreck behind.

Thomas Campbell represented in academic robes; Mathew Prior, John Milton, John and Charles Wesley, Samuel Butler (Hudibras), Ben Jonson and cut on the pavement above his coffin—'O rare Ben Jonson!' A fine monument to Chaucer but much defaced; a bust of Longfellow was placed here by English admirers and recently one of Robert Burns.

Across a street from the abbey is parliament house, the world's finest gothic and the most lordly pile on earth for legislative purpose. The former house was burnt in 1834 and the present was begun six years later. It extends along the river 940 feet, covering nearly 8 acres, the estimated cost of \$10,000,000 was probably doubled before the last touches were given. The central spire rises 300 feet, the clock-tower 320—the clock has four faces each 22 feet across and the bell weighs 9 tons. The great Victoria tower (about 90 feet square with fine corner turrets) rises 340 feet and under it is the royal entrance. The roof is of wrought iron with galvanized cast-iron plates and the whole thing is no doubt fireproof. There are said to be 1100 apartments, 100 staircases, two miles of corridors and 16 miles of pipes for heating purpose. The chamber of peers is 97 feet long, 45 in height and width, very rich and handsome; that of the commons is but 60 feet long and allows each of its 650 occupants less than one-quarter the space for a peer. In short the room is altogether too small for so many and there is no

earthly reason for this except that putting representatives of the people on equality with peers would be a form of treason where blue-blood is cream. In view of such condition one feels like siding with the person who thanked God for a country where people are great or small according to individual merit. Persons are admitted to hear debates by a member's order, but at time of my visit nothing transpired worthy of special comment. Members remove their hats while speaking, but when done replace them with a degree of violence that might lead a stranger to guess a cracked brain or high dudgeon. On Saturdays the public are allowed to see the rooms; but since the dynamite scare only a few are shown, while visitors are raced through at such gallop as to leave a mere idea of corridors, statues, wall pictures in oil, distemper or fresco. Westminster hall, dating back 500 years, is one of the most historic piles in Britain. It seems to have been designed for banquets and coronation feasts (the last given when George IV. was installed into office); and it is stated that Richard II. used to give Christmas feasts at which no less than 10,000 were present. Till 1820 it was used for state trials; the mockery previous to the judicial murder of Wallace, trial of Warren Hastings, earl Stafford, Thomas More, Somerset, Charles I. and others. The building is 270x68 feet and 90 in height of ceiling, the inside roof formed by 13 great ribs of timber, supported by neither beam nor pillar. A row of statues extends along each side of the hall. Not a little of English history clusters round this old landmark, now incorporated into parliament house.

Standing on a slope north of the river and a half mile east of London bridge is the tower, surpassing all English structures in historic association. Leaving out traditions of its Roman origin and subsequent claims of king Alfred, it appears settled that William of Normandy erected the pile over 800 years ago. To west is 'tower hill,' where for centuries the scaffold was a familiar object; to north is 'little tower hill.' The stronghold is surrounded by a wide ditch over half mile long and now used as garden. Inside is a double line of walls in places 30 feet high and 12 feet thick, known as the outer and inner wards. The reader who fancies the tower to be a single building is in error, for on the enclosed 12 acres are about 50 structures the whole appearing like a fortified town in a small way. There are 'bloody tower,' 'St. Thomas tower' (under which is traitor's gate entered by water), 'middle tower,' 'Wakefield tower,' 'Beauchamp tower' and several others. All these are along the

ramparts; but the great Norman keep or 'white tower' occupies the center, 116x96 feet and 92 feet in height. For centuries the tower was used as fortress, prison, law-court and palace. Here Plantagenet kings held tournaments, revels and high religious rites—here were imprisoned many of England's bravest and best statesmen, queens, princes, warriors, nobles and clerics, their crimes frequently nothing more than rank, patriotism or adherence to religious opinions. Paris had its bastille, London its tower, both a terror not so much to persons of bad life as to those of opposite kind. The place will ever be associated with revenge, tyranny and spite, together with the exercise of man power devil-directed. On tower-hill the scaffold stood 350 years, heads rolling off the block as mere pastime; the work was begun by execution of Sir Simon Burly in 1388 and ended by cutting the head off Simon Fraser (Lord Lovat) in 1747. The first prisoner was Ralph Flamart in 1100, the last Arthur Thistlewood who with four others were executed in 1820 for a plot to murder crown ministers at a cabinet dinner. On the dungeon walls of Beauchamp tower are 91 inscriptions cut by persons during confinement; besides the lettering many have shields and armorial devices cut in a manner that shows skill and taste. Here is about the longest: 'Better to be in the howse of mornyng than in the howse of banketing; the harte of the wyse is in the morning howse: it is better to have some chastening then to have over moche liberte. There is a tyme for all things—a tyme to be borne and a tyme to dye; and the daye of deathe is better then the daye of berthe: there is an ende of all things, and the ende of a thing is better then the begenin: be wyse and pacyente in troble, for wysdom defendethe as well as money: vse well the tyme of prosperite, and remember the tyme of misfortune. 22 Aprilis, 1559. Wm. Rame.' Another—'Hit is a poynt of a wyse man to try and then truste; for hapy is he whome fyndeth one that is just. I leve in hope and I gave credit to my frinde in time did stande me mooste in hande so woulde I never do againe, excepte I hade lavye sver in hande, and to all men wishe I so vales ye svsteine the leke lose as I do. Vn happie is that man whose actes doth proceve the miseri of this hovrs in prison to indvre. 1576 Thomas Clarke.' One of the longest and by far the best executed is by Charles Bailey who in 1571 was sent to England with letters in cypher respecting a conspiracy in behalf of the Scottish queen. His errand being suspected, he was seized and placed in the Tower. Another consists of a shield and crest composed of three salmon, with

the motto 'Nectemere neetimore' (neither rashly nor with fear); to left in the center of a star, surrounded by a circle with the words 'Sic vive vt vivas' (live that thou mayest live); to right, a death's head surrounded by 'Et Morire ne morieris' (and die that thou diest not). To this is added—'T. Salmon 1622, close prisoner 8 months, 32 weeks, 224 days, 5376 hours.' In two places appears the word 'Jane,' a memento of Lady Jane Grey. Nearly in front a mark on the pavement shows the spot on which were beheaded Catherine Howard, Anne Boylen, Lady Jane Grey and others. The former two had the ill-fortune to be wives of Henry VIII.; the latter was made queen against her wish and 9 days after was imprisoned and sent to the block on February 12, 1554, aged 17 years. A number of wild beasts were kept in part of the grounds for centuries till the last were removed 60 years ago. The first elephant seen in Britain was sent by the French king to Henry VIII.; a house for it is said to have cost £22 and 20d. In reign of queen Anne there were 12 lions and smaller beasts in proportion. The phrase 'going to see the lions' is thought to have started about this time.

The regalia and crown jewels are kept in Wakefield tower, attended by a warden who never quits his post unless relieved. They consist of the Queen's diadem (a species of crown), old imperial crown, Queen's crown made for her and valued at about \$500,000; Prince of Wales crown; coronation bracelets, temporal scepter, spiritual scepter, crown formerly worn by Prince Consort, St. Edward's staff 4½ feet long bearing orb and cross, all of gold and thought to date from crusading times. The scepter of gold with jewels, length 2¾ feet, valued at \$200,000; rod of equity 3½ feet, gold, set with diamonds. The state salt-cellar is a mighty affair in form of a tower, with 12 cellars of less dignity and importance; four swords of state, a number of maces, christening fountain, maundy dish, sacramental flagon, two enormous tankards, anointing spoon, four gold spurs—supposed to represent altogether 12 to 15 million dollars. Needless to say, all these toys are useless while the yearly cost of attendance must reach a good figure. When one remembers the thousands in London who are without food, home or raiment, sleeping on bridges, around squares and wherever they find shelter, the thought naturally occurs—why not sell in job lots these cart-loads of jewels and apply the proceeds towards raising those paupers to the rank of decent people? Kings with rare exceptions have ever acted like children (very bad ones) and it is perhaps natural they must have toys; but in a practical age, toys

that cost tens of millions are surely too heavy to swing. Since playthings are needed a more brilliant fit-out than the crown jewels could be made at small cost, that would symbolize royalty to perfection—a useless bauble of tinsel and paste. About 200 years ago those emblems of state had nearly passed into other hands by unfair means and evil motives. One day a roving reckless character named Blood (dressed as parson) called to see the jewels, accompanied by a woman he called his wife. Feigning illness the lady was brought into an adjoining apartment where she soon recovered and became so intimate with the keeper's wife that Blood arranged a match between a pretended nephew and her daughter. On the evening appointed parson Blood, the nephew and two confederates (with concealed daggers and pistols) appeared at the jewel-room, one remaining at the door as sentry. While waiting for mother and daughter to appear, Blood asked the valuables to be shown and when off his guard the keeper was gagged, thrown down and held while the goods were being secured. At this instant the keeper's son arrived from Holland and the sentinel, evidently off his guard, failed to intercept him. Seeing the disorderly look of things inside, the son raised an alarm and cries of murder! treason! 'catch them!' rose fast and furious. But the robbers didn't wait to listen—they lifted their feet quickly, passed the guards and at the outside gate mounted their horses. They were caught however and even then Blood struggled hard before resigning his booty. Blood not only got clear but was before long placed in a good office—a curious story from end to beginning, 220 years ago when Charles II. was king.

In 1841 the old armory erected by William III. was destroyed with (it is said) 280,000 muskets and immense lot of valued stuff. The white tower has since been a repository of old armor and perhaps no building on earth contains so vast a treasure in that line. The old council chamber (95 by 40 feet) is taken up with equestrian figures and on entering one fancies himself surrounded by a company of armed knights in the steel covering of long ago. They are ranged in chronological order, the earlier kind being rude and imperfect, covering but small part of the body. Later kinds show wonderful perfection, some beautifully chased with gold, and all done with the hammer. The metal is a quarter inch thick, a horse's armor weighing from 30 to 110 pounds, that of its rider about half the weight. Chain armor first came into use, but failed to become general. The earliest plate armor shown dates from the 12th century; the

system rose to its best some 400 years ago, but has been laid aside for three centuries. The work is a marvel of excellence and I was informed the cost of a steel suit for a man and horse reached a thousand guineas. A suit in Dresden museum is said to have cost 13,000 crowns. Along the walls are great spreading sheaves of pikes, spears and lances from 14 to 20 feet long and quite heavy—battle-axes are in great variety and numbers. Round the windows are clustered piles of pistols, locks, spurs, powder-horns of many designs in horn, ivory and metal. Inventive genius seems to have run wild judging from the absurd instruments to cut, maim and butcher; a weapon named the scorpion is truly uncanny; 'the morning-star' consists of a handle 10 feet long with an iron head and points radiating in all directions; the 'holy-water sprinkler' has a similar handle ending in a cluster of short chains, each with iron knob. 'The organ' consists of 18 barrels in a frame, all fired at once—another with 7 barrels. A number of guns on revolver principle, 4 to 6 chambers and centuries old; magazine fusil capable of firing 18 shots a minute; breech-loading cannon three centuries old and later; two-handed sword 10 feet long with a three-foot handle; executioner's sword (king of Oude's) blade 4 feet long, 6 inches wide, handle 3 feet, weight 64 pounds; sabre from Mahratta with blade 7 inches wide; 50 assagais given by a Caffre chief in token of submission; pistol-and-axe, pistol-and-shield, and similar absurd combinations; match-locks, wheel-locks, scymitars beautifully chased in gold. The workmanship on arms and armor from India struck me as wonderfully fine. An English musket used at the Crimea has a clean bullet hole through, near the muzzle, the barrel of another is flattened by a shot; brass gun 15 feet long, weight 5 tons, used on ship 'Great Harry' in 1542. Armor worn by the champion of George II. [At coronations the champion dressed in complete armor, challenged to mortal combat any man who three times denied the king's right; the office began in time of Edward I. and continued to the reign of George II.] The rack and other instruments of torture; mask, axe and block used at beheading of Lords Balmerino, Kilmarnock and Lovat; figure of queen Elizabeth on horseback as she appeared at fort Tilbury in 1588 to encourage her troops when the Spaniards were expected to land; a brass gun taken from Malta by the French in 1798—Napoleon was sending it to Paris when a British ship ('Seahorse') fell in with the vessel and after the usual civilities carried off the prize. Guns from wreck of the 'Mary Rose' sunk in 1545 (under water 295 years and masses of rust); also bows of yew 6 feet long

from the same; gun from the 'Edgar' sunk in 1711; several guns from the 'Royal George' (and part of her keel 18 inches square) which went down at Spithead on August 19, 1782. [This ship was one of the largest and best equipped in the navy, carried 1000 men, 100 guns and was 65 feet from keel to taffrail. She had received six months' stores, taken on board many tons of shot and in two days was to sail with the blue flag of admiral Kempensfelt at her mizen. For some purpose it was necessary to keel her over and as the vessel was deep every wave dashed in at the lower tier of ports. Still no danger was apprehended and sailors amused themselves chasing rats driven out by the water. About noon the carpenter came up and warned the lieutenant in charge of danger and advised to have the ship righted; in reply he was told to look after his chisels and not meddle with things above his station. After a little he again asked the ship to be righted and was curtly told he had better take charge if he knew the business better. Not willing to seem influenced by caution, the lieutenant was in no hurry, and just as the crew were trooping to their stations, the ship went down, half her masts above water, ensign and flag waving as in derision. About 75 were saved and perhaps 900 went down, the admiral with them—just because a conceited fop wished to display his authority for about ten minutes.] A few words about the use made of old arms to decorate the ceilings and we have finished. Who would think that old muskets, swords, sabres, bayonets, pikes, ramrods, springs, plates, locks, hammers could be arranged to resemble flowers, plants, leaves, ears of corn, borders, scrolls, birds, butterflies, beetles—yet so it is; flowers 10 to 12 feet across and everything large in proportion. The whole thing is really marvellous. The work was due to a gunsmith named Harris who received a pension from the state, which he well deserved.

The British museum may be said to start from 1700, when Sir John Cotton presented his library of rare books, followed by purchase of Sir Hans Sloane's collection for £20,000. A house was secured on Bloomsbury square and on January 15, 1759, the collection was opened to the public. From time to time additions have been made by gift or purchase—the mounds of buried cities have given up their treasures and even the grave has surrendered its dismal charge to enrich this vast storehouse. The parent institution is a great structure with classic portico and facade nearly 600 feet in length. The ground-floor to left is mostly taken up with sculpture and reliefs from Egypt, Assyria, Italy and Greece, each section occupying a separate

room. In the Roman section are busts of Cæsar, Brutus, Augustus, Nero, Tiberius, Caligula, Trajan, Otho, Domitian, also pavements, tablets and altars found in Britain. In the Græco-Roman are statues of Hekate, Apollo, Ceres, Bacchus, Diana, Venus, Cupid, the Harpies; bust of Minerva, Homer, Serapis, colossal bust of Jupiter, tessellated pavement 40x12 feet, from Roman villa; also mosaics, altars and tablets. The Elgin marbles consist of sculptures from the Parthenon (temple of Athene) at Athens, obtained by Lord Elgin when ambassador at Constantinople in 1802. The temple of pentelic marble (330x100 feet in area) was built in time of Pericles, 2350 years ago and supposed to cost \$7,500,000 of our money. The three great statues of Athene (by Phidias) were considered perfect; one 30 feet in height was of ivory with drapery of gold, another was of bronze. The Parthenon foremost among the world's great temples was partly destroyed during a bombardment of Athens in 1687 and the Elgin marbles are mostly the frieze, of which about 240 feet were recovered. In another part are seen fragments of the marvellous temple-tomb erected for Mausolus at Halicarnassus (in west of Asia-Minor) about 350 B. C. by Artemisia his disconsolate widow. The structure was 140 feet high, crowned by an immense chariot group, and rated among 'the seven wonders.' The site when discovered in 1856 was cumbered with Turkish houses (all built with fragments of the mausoleum), 12 of which were removed in process of excavation. A slab of the frieze (discovered in a palace at Genoa where it had been a couple of centuries) was purchased, and in 1876 two fragments were found in a house at Rhodes. Another piece was got from a museum at Constantinople, so the reader will understand the value set on ancient sculpture. The frieze represents the Greeks and Amazons in mortal combat—the different encounters shown with great spirit. In the Assyrian rooms are numerous slabs and miscellaneous objects excavated during the past 40 years in the sites of Nineveh and Babylon; Layard's excavations were mostly in a mound supposed to have been the palace of Sennacherib at the former place, where he reigned about 700 B. C. The slabs (of alabaster and other stone) are supposed to have lined the royal apartments, giving in bas-relief a picture history of his reign. They mostly bear marks of fire and some were in hundreds of pieces when recovered. The work is excellent, tho faulty in outline, and perspective is entirely wanting. The reliefs represent building operations, battles, sieges, return with spoils and captives, while not a few represent incidents recorded in scrip-

ture—the reliefs usually accompanied by cuneiform inscriptions. Here are samples—army crossing a river, chariots in boats, horses swimming behind, guided by halters, soldiers swimming supported by air-filled skins, others on shore inflating skins and preparing to cross. Then siege of a city, wall with parapets and arched gateways, assailants mining, breaching and scaling with ladders; battering-ram surmounted by tower filled with archers and slingers, the besiegers attempting to catch the ram with grappling-irons and hurling firebrands to destroy the machine, besiegers pouring on water; darts, arrows and stones, flying through the air—altogether a lively scene. A description of Sennacherib's invasion of Judea bears close resemblance to scripture account except that it fails to record the destruction of the Assyrian host. A black marble obelisk with reliefs and inscriptions, speaks of Shalmaneser receiving tribute—from Jehu son of Omri among others. There is also recorded his encounter with Benhadad, his expedition in Babylon, defeat of Hazael, receipt of tribute from Tyre and Sidon. In centre of the room are glass cases containing hundreds of small objects, as engraved seals and cylinders of crystal, carnelian, jasper, agate, &c., also inscribed clay tablets and articles of bronze. These tablets are two to six inches long, the inscription (cuneiform) stamped on them when soft, then baked or burnt. These consist of contracts, memoranda, receipts, incidents of history, letters and even lawyers' briefs. Some have inscribed casing also of clay, for protection. One is said to be dated 3800 B. C.—old before Nimrod acquired fame as a hunter. Here are a few samples—letter from Sennacherib (while crown prince) to his father Sargon concerning affairs of state; a tablet gives account of the flood, parts almost exactly like the Genesis version; tablet recording movements of stars, another gives observations on eclipse of the moon; astrological omens; list of works in the library at Nineveh; list of kings who paid tribute to Assyria, among them Baal king of Tyre and Manasseh king of Judah; part of tablet recording conversation between horse and ox; part of cylinder with account of Sargon's expedition against Ashdod; tablet with cover containing deed of partnership between Sini Inani and Iriban Sin, B. C. 2120; tablet recording adoption of child, B. C. 707; calendar of lucky and unlucky days; tablet referring to right-of-way; redemption of mortgaged field 529 B. C; sale of a ship; receipt on paying 25 shekels rent for a house; recording sale of slaves; loan of 17 shekels. Many are in fact notes-of-hand tho they don't contain the regulation 'value received.'

Interest at 25 per cent is frequently promised whether paid or not. A great number of small articles in bronze and ivory are here—reaping-hook, fragments of swords, bits of chain armor, bronze nails, rings, fetters, chain, axe, adze, chisels hammer, small bells, a number of weights in form of lion couchant, ladle with spout, funnel with strainer, bronze hand-mirrors. A pair each of colossal bulls and lions, both winged, man-headed, over 10 feet high and the same in length are supposed to have stood at entrance to Sennacherib's palace. They are sculptured in high relief on slabs about 20 inches thick; each has five legs so as to appear perfect from side or front. All have more or less inscriptions, while some are completely covered, reminding of the beast mentioned in Revelation. They were excavated by the indomitable Layard in 1847 and floated down the Tigris 500 or 600 miles on rafts, buoyed by inflated skins. This section contains much interesting sculpture whole or mutilated, but I fear to weary the reader and will pass on. The moabite stone discovered at Diban in 1868 is of untold value to Semetic science. It was 4x2 feet, a monument to king Mesa, giving account of his wars against Omri, Ahab and Ahaziah, kings of Israel. The Arabs on seeing importance attached, reduced it to fragments, but fortunately the discoverer took a paper cast of the inscription before harm was done.

The Egyptian collection is also varied and interesting. The Rosetta stone, a basalt slab discovered in 1799, has three inscriptions of similar import—hieroglyphic, Coptic and Greek, supplying a key to the former which had hitherto been difficult to manage. Early Egyptians show a liking for things of immense size as seen by their temples and statues. Here are many sarcophagi of the hardest rock, beautifully polished, several of them weighing each from 10 to 12 tons. Ramesses II. (thought to be the exodus Pharaoh) is represented by many ponderous statues; one bust is about 12 feet in height and 6½ broad. A colossal head of Thotmes (B. C. about 1600), an arm 14 feet long and 6 feet round, part of a foot 42 inches across (great toe the size of a man's body), no doubt belonged to one figure—over 30 feet in height. Colossal head of Amenophis (Memnon of the Greeks) whose sitting statues 70 feet high at ancient Thebes, are among the wonders of travel. A statue of wood supposed to date from 1360 B. C.; many vases mostly alabaster, two or three said to be 5000 years and others well up. An immense number of small objects in bronze such as lamps, rings, bodkins, tweezers, various tools, a number of copper vessels, infinite

variety of images in bronze, clay or marble. A wig of black curly hair dating from time of Moses, looks in fair condition. About 60 mummies and a greater number of cases are in stock. The remains of king Mycerinus (reputed builder of a pyramid) are said to date but little short of 3000 B. C. Embalming was practiced till about 1270 years ago and it is computed that 420,000,000 were in that manner laid to rest. The operation required at least 70 days and the more expensive process cost a talent (over \$1300), while a cheaper style could be rushed up for \$400—so says Herodotus. The poorer class used bitumen in the preparation, from which circumstance the name is thought to have been derived—mumia, bitumen, or mum, wax. Embalming completed, the body was wrapped from feet to head in cotton cloth, 300 yards being sometimes used. The rich have a beautiful enamel face formed on the wrapping, with false hands folded across the breast; the poor must be satisfied with a daub of ink on the cotton to represent eyes, nose and mouth. When it can be afforded, two or three coffins are used one over the other, the inner covered with inscriptions in their peculiar style of art. The outer ones are large, three inches thick and all dovetailed. The bodies are almost jet black, looking as if hung for a decade in a smoke-house; the lips are drawn tightly back showing the excellent Egyptian grinders. Similar attention was paid to ibis, cats, crocodiles, dogs, owls, swallows, monkeys, snakes, fish, &c. Numbers of these are on the shelves.

The earliest known coins were made at Lydia in west of Asia Minor about 700 B. C., from an alloy of gold and silver. [In Lydia were Ephesus, Sardis and Smyrna, and here Cræsus was king 550 B. C.] Earlier coins were rude in outline, looking as if a bit of metal were flattened with a stone; but in 300 years the art reached great perfection, to decline again before the time of Christ. Ptolemy Soter IV. (king of Egypt) was the first to put his ugly image on a coin, B. C. 220. One of the famous gold darics struck by Darius B. C. 490 is among the lot; also a 10-drachma Greek coin with a deep cut as if to test the metal. The Greeks were rated great schemers and the Persians (a good deal among them during the wars of 490—70) no doubt surmised the probability of filling. The denarius, a Roman coin worth about 16 cents and nearly the size of a shilling, came into use 260 B. C. and was the customary daily wage 2000 years ago. The Jewish shekel was first issued in 140 B. C. by Simon Macabees with consent of Antiochus the Syrian king. The silver shekel was worth 50 cents, that of gold \$8, with figure of a vessel (sup-

posed to represent the pot of manna) and for inscription, 'shekel of Israel' and 'Jerusalem the holy.' The mite was of copper and about the size of a goose shot, flattened. The British penny was first of silver with two deep cuts across so as to be easily broken into half pence and farthings—four things. The goods are arranged according to centuries and one is surprised at small states, provinces and even cities having each a coinage for itself. The number is so vast that courage is apt to fail and examination is given up after a cursory glance. The collection of medals is large and of varied interest. That issued by Gregory XIII. to commemorate the Hugonot murder and a later copy are here shown. Napoleon was no less vain than skilled in war and generally recorded victories by an arch or medal. At one time he planned invasion of Britain and success being assured he ordered medals struck to prove the event. But like a tiger turning to hunt the hunter, John Bull seized the braggart and now Britons examine the electrotype bronze with the wierd satisfaction one has on reading his own obituary notice. Ornaments and gems of ancient days are kept in a small room entered by special permission. Here is the much-prized Portland vase, a cinerary urn found four centuries ago in a sarcophagus supposed to be that of emperor Severus, killed in 235. The ground is of translucent blue with white opaque figures in relief; the vase is 10 inches high, 7 through at largest part and 2 inches at the neck. In 1770 it was purchased by Sir Wm. Hamilton, afterwards became property of the Portlands for the consideration of \$9,400, and since 1810 has been at the museum. In 1845 a visitor dashed it to pieces, but it was so well repaired that no trace of fracture is noticed. Among the objects is an alabaster jar found at the mausoleum already noticed, inscribed—'Xerxes the great king.' (Xerxes was Persian king from 485 to 465 B. C.) A gold snuff-box given by Napoleon to a Mrs. Damer with his picture on the cover and around the edge a row of brilliants about the size of goose-shot. In the glass collection is an amulet with name of an Egyptian king placed at about 2400 B. C.

The number of printed books in the museum is now probably over 1,500,000 and rapidly increasing. Since 1814 the trustees have a right to one copy of every book published in the kingdom and some years no less than 40,000 copies are added by gift or purchase. The reading-room in center of the quadrangle was built at cost of \$750,000 and is a marvel of convenience and comfort. The dome is 140 feet across, rises to a height of 106 and is covered with copper. There are said to be 24 miles

of shelving, and numerous attendants wait on the 500 or 600 readers. George III. was a famous book collector and after his death the library of 74,000 volumes was presented to the trustees. Many of the books are rare and costly, affording delight to those having a sharp tooth for such matters. Books old as the days of king Alfred and a book published in 1855 at cost of \$30,000; aristocratic books printed on silk or satin with ivory covers and so small as to find accommodation in a watch-pocket; books large, showy and pompous; books strange, fantastic and cranky; books warlike in mien and fierce in aspect, girt about with leather, fortified with bands of steel, clasps and bosses, armed like ancient cities; 72 books illuminated, that is having small gay pictures among the reading; books in blunt, stubby, strange Hebrew letters and parchment rolls such as once used in the temple; books written on leaves of plants and skins of beasts; books on all subjects, in many tongues and ditto countries; books printed with wooded blocks prior to types of metal. Over 100 mss. in Greek and Latin, some dating a century before Christ; a Latin ms. of the gospels (about 700) has in each side of the cover 6 large and 12 small gems; part of Homer's Iliad in uncial letters on papyrus, dating a century B. C., found in Egypt 1849, leaf from a palimpsest ms. (vellum) in which the original text of Homer is erased to accommodate some 9th century writing. The Mazarin bible issued at Méntz in 1455 is said to be the earliest printed from moveable type. 'Recuyeil of the histories of Troy,' printed in Holland by Caxton was the first book in English. Next year Caxton came to Britain and struck off 'The Sayengis of Philosophres enprynted by me Wm. Caxton at Westmestre the yere of our lorde 1477.' Samples of extraordinary binding, some with boards of ivory carved in high relief; samples of chained books. A map of the world (1290—1310) represents the inhabited earth a circular island; Jerusalem in center and the ocean an interminable stream flowing round it. Some alpine books printed at Venice nearly 400 years ago are marvels of the preservative art. Here is a copy of the book that caused Leo X. to confer on Henry VIII. the title 'Defender of the faith,' printed in London 1521; not far off is the bull conferring said title, signed by the Pope and many cardinals. Copy of indulgence issued by Leo X. which caused the remonstrance from Luther; copies of magna charta, 1215; fragments of Homer's Iliad written on papyrus about 2000 years ago; the scriptures in Greek, uncial letters, on vellum, date 464; English bible that belonged to Duke of Gloucester, put to death

1397; order in Council appointing Cromwell protector of the realm. First collected edition of Shakspeare, published 1623, with picture and titlepage—'Mr. Wm. Shakspeare's comedies, histories, tragedies printed according to the true originall coppees;' and on the opposite page (by Ben. Jonson)—'The picture thou here seest put, it was for Willie Shakspeare cut, wherein the grauer had a strife with nature to outdo the life. O could he but have drawn his wit as well in brass as he has hit his face, the print wold then surpas all that was euer writ in bras. But since he canot, reader, looke not on his pictur but his booke.' Deed with signature of Shakspeare, 1613; agreement for the sale of 'Paradise lost,' with signature and seal of John Milton; inscription written on album by the same in 1657; enumeration of cavalry at Waterloo in the writing of Wellington; specimen copies written in youth by Edward VI., queen Elizabeth and Charles I. Letters from Erasmus (1530), Luther, Melancton, Calvin, Raleigh, Reubens, Rembrant, Philip Sydney, Francis Bacon, Newton, Moliere, Dryden, Addison, Voltaire. George Washington commanding British troops in Virginia writes—'I could most sincerely wish our route was fixed that we might be in motion, for we are all tired and sick of inactivity, August 28, 1758.' Henry VIII. writes to Wolsey in this fashion—'Myne owne cardinall I recomande me unto yow with all myne hart and thanke yow for the grette payne you dayly take in my bysnes and maters, desyryng yow to take summe pastyme and comfort to the intente yow may the lenger endure to serve us, for allways payne canott be induryd. Surely yow have so substaunceyally orderryed owre maters bothe off this syde the see and byonde that in myne oppynion littyll or no thyng can be addyd. Wrytten by the hand off your lovyng maister Henry R. March, 1518.' Letter from Anne Boylen before her marriage thanking Wolsey for helping on the match; letter from Jane Grey as queen; from Elizabeth, Charles I., Cromwell, Cardinal Wolsey, John Hampton, from Sir Thomas More to Henry VIII., ending—'I shold onys mete your grace agayne in hevyne and there be merry with you.' Letter from Richard Baxter, Johnson, Garrick, Handel, Claverhouse, Whitefield, John Wesley, Lord Byron, Napoleon I., Alexander Pope. There is also a volume (draft translations of the Iliad) written on back of old letters; no envelopes in those days and people used large paper, half of which was generally blank. Great litterateur as he was, Pope did'nt believe in waste. Letter from Nelson on eve of his last battle; below it in a tiny box from a splinter of the 'Victory'

is a lock of his hair. Letter from general Gordon to his sister Mary Augusta, dated—'Khartoum, February 27, 1884. I sent Stewart off to scour the White Nile, another expedition to push back rebels on the Blue Nile. With Stewart has gone the British consul and 'Times' correspondent, so I am alone in this vast palace; but not alone, for I feel great confidence in my Savior's presence. . . . I believe ambition put me here in this ruin; however I stay myself on the fact that not one sparrow falls without our Lord's permission. March 1—We are all right at present and I hope; but things are not in good way humanly speaking. Baker's defeat at Suakin was a great disaster and had its effects here; but it is nothing with our Lord to help with many or few. . . .'

Four rooms contain nothing but vases, thousands of them, some dating back 2600 years, of all sizes, from every country and of varied materials—glass, bronze, terracotta, alabaster. Other rooms contain articles in bronze and nothing else—tools, implements, kitchen utensils, divinities in thousands from size of an inch to two feet; armlets, anklets, mirrors, strigili (bent scrapers for use in the bath), needles, hairpins, fishhooks, dividers, steelyard balance, bridle-bits scarcely different from those now in use. Shields, lamp-stands, bronze covering of Shalmaneser's gate, showing his exploits in picture language; plate of copper inscribed with treaty between two Italian tribes in the dim past; numberless articles of unknown use. I failed to see anything that that looked like a screw-nail or pocket-knife—how did they get along without them? The number of objects from the Pacific islands, China, Japan, India and different sections of Africa are almost beyond limit. Their various implements and appliances, weapons, defensive armor, musical instruments, cooking utensils, dress, ornaments, idols, models of houses, figures of people, canoes and fishing outfits. In the New Zealand section are a cloak of apteryx feathers, four preserved tattooed heads, funnel for feeding chiefs while being tattooed and the axe given to natives by Captain Cook. In another part is the gun used by Alexander Selkirk (Robinson Crusoe), his name carefully cut in the stock.

South-Kensington museum is of vast extent and many of the objects are in keeping. About the first thing one sees on entering is a house-front of wood from Cairo, several centuries old; also latticed windows from the same place; cast of sculptured chimney piece from Brughes, 36 feet wide, 20 feet high, the opening 13 feet across, date 1530; cast of pulpit from Pisa 12

feet high, date 1302; cast of bronze 7-branched candlestick, 18 feet high and large in proportion; boudoir of Marie Antoinette (queen of Louis XVI.) valued at \$10,000; great vase of Sevres porcelain presented by Napoleon III. to Cobden on effecting a treaty between England and France; a marble singing gallery (cantoria) from a church in Florence, erected about 1500, a marvel of fine work; copy of Bayeux tapestry. [The original is a roll of canvas or linen 220 feet long, 20 inches wide, embroidered with woolen thread of 8 different colors, representing the Norman conquest in 1066. It was long thought to be the work of William's wife but critics contend that it belongs to a century or two later. The web (preserved at Bayeux) has 72 scenes and at least 1500 figures of men and horses.] Copy of Trajan's pillar at Rome, base 21 feet square, the whole 147 feet high, diameter 13 feet. It is in two pieces, but even then, an immense object to show in a house. The original is entirely of marble and was put up in 114 to commemorate the victories of emperor Trajan. Model of gateway said to have stood previous to the Trojan war; state barge of James I., nearly 300 years old, 63 feet long and impelled by 20 oars; fire-engine built in London in 1721, also squirt-guns used for putting out fires previous to that date; room from a house in Damascus, about 22 feet square, with divans and pillows; state carriage of George III. built in 1760, hind wheels 6 feet high, axles 12 feet apart; model of Chinese villa, size 26 inches square and 24 high, mostly carved ivory. It formed part of a present from the emperor of China to Josephine wife of Napoleon; but the French ship was captured and the gift fell into other hands. After treaty of Amiens in 1802 the British offered to restore the present, but Napoleon being in high dudgeon would not accept. A Chinese screen in 12 folds, 26 feet long 11 feet high, valued at \$5000; wall hangings of embroidered crimson silk, formerly belonging to an empress of China; earthenware medallion 12 feet across, with raised flowers along the margin, shield and arms in center—simply a gigantic plate made in Italy 440 years ago. Asiatics are expert at carving and constructing models. Here is a state procession cut in ivory, 3 elephants, 3 camels, 5 horses, soldiers, a band and about 50 persons; a dancing party of 26 figures is also shown in ivory; state barge with 20 figures; garden watered by a Persian wheel; gun and carriage cut in agate and mounted with silver; large model of Indian village with market in full swing, monkeys stealing fruit whenever one's back is turned. Colossal bronze sitting figure of Japanese goddess; wooden latticed windows from

Cairo, date 1600; piles of Japanese pottery, one jar dating back 640 B. C., bottle 730; great vases 7 feet high. Typoo Sahib, sultan of Mysore, had no good will to the English and he had a machine made in form of a tiger tearing an Englishman to pieces, a kind of organ which on being started produced sounds as of a human being in distress. This was sweetest music to Tipoo, who was killed at storming of Seringapatam 1799. The organ was seized among the spoil, and tho complete in outward form, voice is wanting. Musical instruments from the simplest and rudest to the most complete and perfect, a virginal that belonged to queen Elizabeth among the lot: the spinet, virginal and clavicord (all similar), were steps between ancient harps and the modern piano—only a harp in essential features. Here is a base viol 8½ feet long, the body about 6 feet and 4 across the widest part; a violin bearing date 1579, given by Elizabeth to her favorite Leicester; harpsichord once owned by Handel; spinets over 300 years old. Seals of all British sovereigns from Edward the Confessor, seals of barons, bishops and abbots—in all 360. At first 'the great seals' were two inches across, now they are 6 inches. Great variety of antique watches, some not much larger than a cherry and crowded with jewels; others four inches across and seemingly pounds in weight; some with four dials; some enclosed in crystal, showing the pulse-beats of tin. A mirror of burnished metal valued at \$6,300; chess table dated from 1540 and valued at \$7,800; Dents' glass-spring chronometer; a clock with vacuum escapement; a back-comb 20 inches wide, another 13x16 inches; crown and shield of king Theodore taken at capture of Magdala; cast of two-wheeled carriage found in a moss or bog at Jutland, supposed to date from A. D., 400 to 500; pendulum perhaps 60 feet long showing diurnal rotation of the earth. Most all the early steam-engines and locomotives are here; 'sun-and-planet' engine made by Watts in 1785, in use till 1885; 'puffing-billy' the oldest locomotive in existence, made 1813 and worked till 1860; the 'rocket' made by Geo. Stephenson in 1829 for the Liverpool-Manchester railroad, opened in 1830; printing press said to have been used by Ben. Franklin; reaping machine invented in 1826 by Rev. Patrick Bell of Scotland and working till 1867. Many were invented since the variety mentioned by Pliny 1830 years ago, yet unquestionably Bell's was the first that contained the elements of success. Copy of original sewing-machine made in Paris 1830, bearing small resemblance to those used at present. The idea of propelling vessels by screw was started 120 years

back and a number of models show the advancement, till about 50 years ago the scheme arrived at its present state. In earlier attempts an actual screw was placed under the keel or at the stern, as seen in the models. Here is shown the engine of the 'Comet,' built near Glasgow in 1811 and rated the first successful attempt at steam navigation; also model of engine and paddles of the 'Great Eastern.'

The natural history museum is 670 feet long, covers four acres, cost \$1,750,000 and among the handsomest buildings in London. In the entrance hall 170x97 feet and 72 in height, is the skeleton of a whale over 50 feet long and tho not the largest of its kind, makes a respectable figure. In passing along these acres of halls peopled with stuffed birds and beasts, one wonders if earth had not been denuded to stock the vast menagerie. One almost fancies himself a pigmy when wandering through a jungle of great beasts as natural in appearance as life. Giraffes rising within an inch or two of 20 feet; elephants 10 to 12 feet and vast of bulk; hippos and rhinoceros nearly as large, tho less tall; an ostrich able to look over a man's hat were he 9 feet in stature; then deer, antelope, Indian cattle, buffalo, all rising above the spectator; great bears large as horses, tho not so tall. Monkeys from size of squirrels to the orang-outang almost large as a person; the gorilla big enough to weigh 200 pounds, slightly human in form but without a shade of love in its terrible features; seals and sea-lions 12 to 15 feet long; beavers with industrious habits and helpful tails; the llama a South-American occupying middle-ground between camel and sheep; bats with about two yards' spread of wing. Birds in amazing variety of size, shape and color—many of extravagant beauty. Next, fishes from 50 feet long to size of minnows, some ill-formed and hideous; fishes much broader than long, fishes with beak like a bird and fishes that build nests. Then a gastly array of skeletons, once covered with the skins above-mentioned; skeleton of mammoth (extinct) 14 feet long, about 13 feet high, much resembling an elephant; skull of extinct elephant, tusks probably 11½ feet long and 9 inches thick; skeleton of extinct ruminant, apparently large as the ivory-producer; skeleton of sea-cow 27 feet long; skeleton of Irish elk (extinct) 8 feet high at shoulder and about 13 feet to top of antlers, these 18 inches at widest part and 11 feet between points—weight of horns 80 to 90 pounds; also individual bones that must have belonged to larger animals than any mentioned. Here are shells, apparently in millions, and some of rare beauty. Ammonite shells (in fossil) three to four

feet across, size and shape of a large grindstone; a giant clam-shell 21x33 inches; slabs of stone with foot prints of birds and beasts; human skeleton embedded in limestone. Fine collection of minerals; models of noted diamonds and other stones; mass of jade 1156 pounds; gold snuff-box set with 14 large and hundreds of small diamonds, presented to Sir R. Murchison by the Emperor of Russia; also fine quartz vase $4\frac{1}{2}$ feet high on pedestal of porphyry. Model of nugget found at Ballarat, Australia, in 1358, the largest mass of native gold ever seen, 20 inches long, 11 wide, 7 to 8 thick, weight of pure gold 2268 ounces; also model of one found the same year 120 miles from Melbourne, weight 145 pounds troy. A large collection of meteorites, the biggest $3\frac{1}{2}$ tons, found in Australia; others ranging down to a few ounces.

Bethnal Green museum in eastern part of the city and over 6 miles from the last mentioned, is mostly of an industrial nature. Here are seen raw materials and the various stages of manufacture—silk, beginning with cocoons and following to the finished fabric; the same in the case of wool. Hatmaking is shown from first to last; the various processes in manufacture of leather and uses to which applied; piece of leather from human skin. A icicle made from horn, bone and ivory. (In 1886 Britain imported bones for manure to the value of \$1,500,000.) Costume of people in various countries; composition of the human body, the various elements shown in cubes; models of all vegetables used as food, a bean-pod 15 inches long. Sugar from different sources; process of making gold-leaf. Four chairs, lounge and table, ivory carved open work and gilt, a present to Warren Hastings from an Indian prince; several interior views of St. Peters at Rome, with many other pictures. Perhaps the greatest curiosity is a 6-inch hawser of women's hair, 700 feet long, 550 pounds in weight, made in Japan. It was made by order of government for some special purpose, but when finished in 6 years and brought to Yeddo, the bearers were told it was not required, as stronger cables were now made of steel.

The United-Service museum is near 'Scotland Yard' and Whitehall, names familiar to the reader. The objects are mostly connected with bloodshed and of immaense interest; but lest the reader be wearied of such matters, only a few will be mentioned: revolver 200 years old; sword-bladed shot; guillotine used at Guadaloupe before 1794 which struck off at least 50 heads; anchor 11 feet long from one of the armada vessels wrecked on the coast of Ireland 1588; plan 12 feet square giv-

ing the position of ships at Trafalgar battle; model of the 'Victory'; cocked-hat and laurel wreath from the coffin of Nelson; a quantity of spirits in which his body was taken home after death; small bunch of his hair; models of nearly every ship in the navy; cocked-hat of Wellington; saddle of Blucher; skeleton of the horse Napoleon rode at Waterloo; plan of the battle-field 20 feet square; piece of gate from Hugomont, pierced with bullets; flags, pistols, crosses and eagles picked up after the battle; flags and many trophies from the Russian war; also plan of the ground about 20 feet square; plans of other battle-fields, fortifications and harbors.

Chelsea hospital (for used-up soldiers), built in time of Charles II. pleasantly stands along the river two miles west of the Abbey and a mile south of Kensington museum. The ground consists of 67 acres nicely laid out in lawns, flower-beds and walks, with some captured guns and piles of 36-inch shells to remind the inmates of past conditions. The building has room for 600 men (538 at time of my visit), a small sleeping apartment for each, with large rooms for eating, reading and gaming. Round the walls are pictures of noted battles, with picture of the commanding officer above. The inmates appeared happy, most of them playing at dominos or cards. The last Waterloo brave died shortly before my visit and his picture hangs on the wall. A comfortable chapel completes the outfit, and high up in the nave are hung old flags taken in many encounters—French flags taken in Egypt, at Blenheim, at Waterloo, at the Peninsular war of 1812; flags taken at the Crimea, at the Indian mutiny, at the Seikh war, two standards from Typoo Sahib and a flag from the renowned Dutch admiral Van Tromp in time of Elizabeth. Of many nothing remains but the sticks and others would have disappeared were it not that patriotic ladies had woven nets about them. Near at hand (in 24 Cheyne row) Carlyle lived from 1834 to '81, and a tablet in the wall states the fact. In a small garden by the river sits a bronze statue of the Chelsea sage.

Greenwich with some 42,000 is to right of the Thames, 4 miles below London bridge; its manufactures consist of telegraph cables, ship rockets, wire rope, india-rubber and artificial stone. The royal observatory established in 1675 stands on a hill a mile back from the river. A large building originally a palace in which Henry VIII. and his daughters Elizabeth and Mary were born, was 200 years ago fitted as home for disabled seamen. Some 40 years back the institution commanded a revenue of \$75,000, lodged 2700 men; had a governor, lieut.-governor and

20 other officials beside two chaplains and a large medical staff. In 1871 the inmates were elsewhere provided, since which the place has been a kind of naval college; and the old cage has many interesting things in connection with war and the ocean. 'The painted hall' has statues of Nelson, Duncan, How, St. Vincent, Exmouth, Sydney Smith, a large relief tablet to Sir John Franklin, while the walls are covered with pictures of renowned admirals, together with the following sea-fights—Nelson boarding the San Nicholas, battle of St. Vincent, victory of the Nile, battle of Trafalgar, bombardment of Algiers by Exmouth, victory of admiral Bing over a Spanish fleet, relief of Gibraltar by Rodney, destruction of French off Lahogue by Rooke, Hood defeating the French in 1782, victory at Camperdown by Duncan, victory off Ushant (How), defeat of French fleet at Barfleur in 1693, death of Captain Cook, and the Bellephophon with Napoleon on board. Most of the pictures are good, and while viewing them one almost fancies the smell of powder and shock of battle. In a museum are models of warships from 'Great Harry' (of about 1000 tons) built in 1514, down to the era of steel-clads in our own time. Ten are fully rigged, 65 hulls are in model and 80 in form of section. The largest model is 12 feet long, the masts 9 or 10 feet in height. The place is crowded with curiosities connected with shipping—among them a slab of compact stone riddled by marine insects. The most interesting however are the relics of Nelson—here are the coat and cravat worn by him at battle of the Nile; gun, sabre and canteen presented to him by the sultan; coat, vest, sword and watch worn at Trafalgar and other objects. The bullet that caused his death entered under the epaulette on his left shoulder, and the white linen vest is stained with blood. A small room is entirely hung with the hero's pictures, one intended to show the nation's grief represents him breathing his last folded in the arms of a beautiful woman. Nelson was the darling of British people, which is not strange when all things are considered. Little stood between Napoleon and universal empire but the small realm of Britain, and humanly speaking that was saved by wooden walls and the genius of Nelson. With the French victorious at Trafalgar as at Jena or Wagram one scarcely cares to contemplate the issue; and it is no wonder the nation's bosom heaved and that tears of joy were mixed with groans of sorrow on hearing how ended the fight.

Woolwich is also by the river side 4 or 5 miles below Greenwich, with perhaps 40,000 people. Here general Gordon began

life in 1833, and here every artillery officer and recruit must learn his business. The arsenal, an immense factory of arms and missiles, is the only attraction and to my notion it is enough. Were I again in London with only time to visit one of the half-dozen great sights I would select Woolwich—but I know tastes differ. The works are $3\frac{1}{2}$ miles in circuit, facing the river and surrounded by high walls with two gates, each guarded by sentinels; and while in the grounds one must not be seen making notes or applying a rule to take measure. From 12,000 to 15,000 are usually at work, the larger number being there at my last visit; 500 people make an average congregation, and the reader may fancy 30 such crowds together. My first thought was about the expense, followed by the suggestion that a fire-and-sword principle of settling disputes contains a large element of madness. All these thousands working year after year with the ultimate object of destroying life and treasure! But not all the guns and missiles turned out in time of peace will ever reach a field of battle; improved arms are constantly invented and many weapons that last year were made in fiery haste at cost of cart loads of money, are next year thrown on the scrap-heap or broken up for remelting. The shop where most of the brass-work is done has (I was told) 1600 workmen, and is a regular jungle of belts and shafts, each belt running some kind of machine. Even the brass shell of an ordinary cartridge undergoes 11 operations on as many presses. I make no reference to the immense number of brass things for shells, torpedoes and time missiles. The lead for bullets comes from crucibles near by in endless coil, is wound on reels, cut and shaped by several presses. The wood shop is also a busy place—sawing, planing, mortising and dovetailing, all done by automatic machinery of the best kind. The work here largely consists of ammunition boxes, rushed up as if the French were landing at Dover. In another shop wooden models are made for all kinds of castings. A cooper shop turns out powder barrels at a brisk rate, all except setting the staves on end and driving on hoops being done by machinery. In the pattern house are seen samples of every cartridge, bolt, shell, rocket, torpedo fuse or signal, each with a small cotton bag attached in which is a government seal. Coal-dust is used instead of powder and things so charged are named 'dummies.' The harness shop is a big affair and contained I was told an outfit for 12,000 troops; from appearance I supposed it would equip three times as many. Trappings for artillery horses were in equal force. The ground floor is taken

up with blocks, cordage, swabs and rammers. Many great foundries for heavy brass and iron castings; next, shops with machinery ponderous as if intended to batter a mountain to pieces. Immense lathes turning or boring great iron shafts 20 to 30 feet long and two to three feet thick, no hand needing to touch them—these great cylinders of iron or steel shaved off or bored easily as a stick of poplar. Guns in all stages and sizes—iron and steel bars scattered about or in piles as logs round a saw-mill. Great heaps of 'scrap' where cannon and shell are being reduced for melting; a heap of iron, steel and copper shavings covers perhaps a quarter acre to a depth of 9 or 10 feet—no doubt thousands of tons. Some shavings are 60 feet long and half an inch thick—others fine as hairs. Think of steel bars 24 inches square, the largest I saw was 28 inches—like great pieces of square timber. Acres covered with palisser shot (in length 4 feet to 6 inches), piled like cordwood; acres covered with guns of many sizes, ranged in tiers. The largest gun hitherto made is 44 feet long, 40 feet length of barrel and $16\frac{1}{4}$ inches bore; the chamber 7 feet long and 21 inches across, the powder charge 960 pounds. The projectile of 1800 pounds leaves the muzzle with a striking force of 50,000 tons, sufficient to penetrate 30 inches of iron at 1000 yards. The effective range is about 8 miles and with proper elevation the bolt will extend 11 miles at least. Its height at the breach is probably 10 feet and with its cradle or stand the gun weighs 111 tons. Tho at Woolwich arsenal at time of my visit, it was made at the Armstrong works near Newcastle. If correctly informed, each charge costs \$500 to \$600. The missile is $4\frac{1}{4}$ feet long, $16\frac{1}{4}$ inches across and pointed at forward end. The largest hammer at the works is 42 tons, has a fall of 30 feet and by using back steam delivers a blow of 850 tons. The machinery is so perfect that it can be stopped within half an inch. At time of my visit a bar of iron steel (about a foot square) was being forged, and every blow sunk 3 or 4 inches, while only a fraction of the force was applied. It may also be stated that one of the furnaces is capable of melting 16 tons of metal at once. The whirl of belting, crash of machinery, thud of giant hammers are heard on every side, while an occasional boom of cannon shakes the earth. Among the curiosities is a field-gun with 9 shot marks, one having broke in the muzzle.

The Crystal palace, on high ground 7 or 8 miles south of London, is considered by some the greatest sight in or about the city. This wonderful structure of iron and glass was first

erected in Hyde park for the exhibition of 1851 at cost of \$1,750,000. It is 1600 x 300 feet in area, with center transept 198 feet high; two water-towers 280 feet high at ends of the palace with tanks at top holding 357,000 gallons and supplying a pressure by which the fountains throw 120,000 gallons per minute. Along the nave are growing palms, ferns, plants and trees belonging to warmer countries, interspersed with ethnological groups, statues and colossal figures. In the center is a glass fountain 14 feet high, a really attractive object. Along the sides are courts fitted up as much as possible to show the architecture of various times and countries. In the Egyptian court a successful attempt is made to show the temple of Karnac on reduced scale, with avenues of pillars and giant statues. In the Greek court is a model of the Parthenon or temple of Athene, tutelary deity of Athens; round the frieze are inscribed the names of men distinguished in war, council or letters, as Solon, Pericles and Plato. In the Roman court are models of the colosseum and Pantheon, and round the walls are statues of Apollo, Venus, Diana and others. Next is a copy of the lion court from the Alhambra, a Moorsque palace at Granada in Spain, rated the finest specimen of Moorish art in existence. In the Italian court are some fine ceilings and a model Pompeii house true to minutest details; on entering a visitor is warned by a mosaic CAVE CANEM and over a side-door is the friendly SALVE. The marble-floored atrium has impluvium in the center, while around are offices and sleeping apartments. A Chinese room contains interesting things from that country. The design of all this was doubtless to give persons unable to go abroad an idea of how buildings look in other lands. A gallery extends at 60 feet from the floor on which are a great number of busts, a fine collection of paintings and industrial museum. In the latter are a comb 6 feet in length made from a single horn, an earthenware pickle-jar 14 feet high with a capacity of nearly a thousand gallons. Throughout the building are numerous restaurants and gay pavilions where attractive trinkets are sold. The concert gallery with a superior organ has room for 5000 persons and excellent entertainments are frequently given. The grounds (over 200 acres) are interspersed with lawns, wood, shrubbery and grottos. In and round a small lake are scattered a dozen or two models of animals belonging to an earlier stage—lizards over 30 feet and quadrupeds alongside of which an elephant would make a small figure. Showy band-stands and frequent out-door concerts. The display of fire and water-works on special evenings

is thought to be unsurpassed, whereas the admission to all the sights is extremely moderate.

Albert hall close to Kensington gardens is a huge brick structure, 800 feet round with a dome of painted glass. It is used for large concerts, seats 8000 persons, and its organ (worked by a steam-engine) is rated among the best manufactured. A number of pictures are shown along the upper galleries, which also serve as a promenade. Across the street stands Albert memorial, a sculptured spire 180 feet, with at bottom a gilt statue of Prince Albert under an azure canopy in which flash a thousand gems. At the corners below are four sculptured groups representing Europe, Asia, Africa, America; on the platform groups representing agriculture, engineering, manufacture, commerce, and cut in relief along the base are figures of 160 men famous in all spheres of praiseworthy effort. The whole cost is placed at \$600,000. Near by it looks pretty with gems, gilt, tinsel, reliefs, sculpture and subsidiary groups; seen a little way off it lacks the simple majesty of Scott's monument at Edinburg, tho costing over seven times as much money. Trafalgar square, rated the finest spot in Europe, is half a mile north of the Abbey and flanked by noted buildings. In the center is Nelson's monument, a handsome shaft rising 170 feet crowned by the hero's statue; and on pedestals round the base Landseer's four enormous lions, the whole costing \$140,000. Two fountains, an equestrian statue of George IV. that cost \$47,000 (good investment), statues of admiral Napier and generals Outram, Havelock and Gordon. The National gallery alongside contains works of British and foreign artists, Landseer's marvellous dogs among the best canvas. That noted center Charing-cross fronts the square, while a vista along Whitehall terminates with parliament house and Westminster Abbey. From here Victoria embankment extends over a mile to east—a broad street with footway each side, two rows of trees, a tier of lamp-posts and a river wall of granite four feet thick—the whole costing \$10,000,000. On the river wall about mid-distance stands 'Cleopatra's needle' a granite obelisk 68 feet long, 8 feet wide at base and 160 tons in weight. It was quarried in upper Egypt about 3300 years ago, lay for centuries at Alexandria and was in 1819 presented to Britain in memory of Nelson and Abercromby. Government seemed in no hurry to bring home the gift and at length Erasmus Wilson offered \$50,000 for landing it safely in Britain. John Dixon accepted the offer, built round it with timber and was towing along with flying colors till meeting a

gale the rock became unmanageable and had to be cut adrift, after six of the crew were lost in the struggle. All supposed the stone had sunk, but the unexpected mostly happens, for a steamer came foul of the derelict and towed it into Ferrol at North-west of Spain. In due time it reached home and in 1878 was erected on a site which few could fancy.

The bank of England half mile north of London Bridge is a low, sullen, selfish-looking place occupying 3 acres and bounded by four streets. The business was started in 1691 by a Scot named Paterson; a charter was got in 1694 and the capital of \$6,000,000 was lent to William and Mary. At the renewal in 1844 government owed \$55,000,000, and now the institution is rated at about \$80,000,000, doubtless the most financially solid kind. The business is conducted by a governor, deputy of its and 24 directors; the former must own at least \$20,000 stock each of the latter \$10,000. (The usual price of £100-stock is about £230.) I see it stated that in clerks, porters and servants, the bank employs no less than 1000 persons, the yearly pay-roll being close to \$1,250,000. Many tons of gold are kept in the vaults in bars about 16 pounds, and worth each above \$4000. Weighing appliances of wonderful delicacy are in use: one machine is capable of weighing 35,000 individual sovereigns a day, casting aside all below the test figure. The standard clock has 16 faces, one in as many different rooms. A good library is among the outfit, and every night a number of soldiers with some trusted clerks are on duty. East of the bank is the exchange, Threadneedle street passing between. The original building was put up in 1567 and burnt in the great fire a century later; a second (erected in 1669 and burnt in 1838) was extremely ornate with carved walls, lofty tower and statues of English kings to George IV. The present exchange is a handsome structure 390 feet long (conforming in shape to the area between Cornhill and Threadneedle) and erected in 1845 at cost of \$750,000. In the east end are Lloyd's apartments—a company of ship insurers so named from originally meeting in Lloyd's tavern, London. The 'list' (started in 1716 and published daily since 1800) gives the latest shipping news from all parts. In front of the exchange is a fine equestrian statue of Wellington which cost \$56,000, and at the back a statue of George Peabody who in 1869 gave \$2,500,000 to erect dwellings for the laboring classes in London. King William street extends from the exchange to London bridge and is usually packed to suffocation, largely owing to the bridge traffic.

The railway system of Britain is very complete and it is claimed that except by faulty construction no accident can happen. The track is divided into sections of 3 or 4 miles and each must be clear before another train is allowed to enter. Curves and grades are less frequent than on Canadian lines, but cuttings and tunnels are plenty. A passenger car is made up of a dozen sections, each having two seats facing, a door on each side, usually locked at starting. Except the top strata of society, nearly all travel third class, which on most of the lines is good enough for a peer. Cars of the first order are luxurious, with arm rests each side, the back of seats rising above one's head. Some lines have discarded second class altogether on account of being rarely used. Stations have refreshment-rooms of three classes, lest in a hurry a lord might chance to rub sleeves with a trader. No pulling off coat and hat to overtake an express, none dare to step on board after a train has started, none allowed to come out till it has stopped completely. Crossing a track is not permitted except to employes, and one has sometimes to walk 200 or 300 yards to reach a place only 5 or 6 yards distant. But with frequency of trains and high rate of travel, the utmost caution is needed—200 trains a day and even 300 passing through a station is not uncommon. Some racers take water from tanks in the road-bed while dashing along at 10 miles in 9 minutes and by simple contrivance mail-bags are taken on board without halt—anything to prevent stoppage. The benefits of competition are evident here—each line striving to add some inducement without increasing the price. The stations are models of order, if not always convenient; and let me add here that a good idea of London's population and business can be formed from its railway depots. Large cities have seldom more than two or three stations and many places with only one would choke in wrath were they called little—what must be the extent of a town that requires a dozen and nearly all vast termini of great lines from the country. Except Liverpool terminus, Midland station London, is the largest and most magnificent in Britain; and did Charing-cross station exist a century ago, strangers would suppose it to be some vast resplendent palace. Several indeed are immense hotels, the railway business conducted in the lower part. It is interesting to watch long passenger trains starting and returning from the north, with their freight of many hundred people—excitement and din of passengers, rush and rumble of porters. There being no system of checks, each must spy out his own dummage.

Now a little about London underground travel. New York and Brooklyn have their elevated lines, but London is the only place in which people like rodents have learned to burrow. I have no idea how many hundred miles of track are under the city, but including the suburbs there must be at least 500 stations. Sometime ago the yearly number of passengers reached 110,000,000, about equal to the number of seconds in $3\frac{1}{2}$ years. At some stations a train passes every minute and it is interesting to watch the movements, a great system of machinery with human beings for cogs and pinions. On entering one takes his place in a line, advancing by degrees through a kind of funnel opposite a window where tickets are sold at about one per second. No matter how difficult the change, it comes in one instant. The stream then passes a ticket puncher and continues down a chute to the platform; a train arrives, disgorges freight, takes in others and is off in 6 seconds. No loitering, no hand-shaking, everything like clock-work. Those who land pass up a series of stairs and windings, give up their tickets and are out on the street. No getting in except past the puncher, no way out except by the right one; this is no unusual rush, but a steady stream day and night, all seasons, all weathers. The road-bed is solid, cars move as if gliding on ice and the iron-horse is brought to halt in about three seconds. As signal for start the guard (conductor) blows a small whistle; locomotive whistles are shrill, feeble and little used, not as here where a good fraction of power is spent in screeching. Did locomotives in London have as much to say as in this country, it would be a dismal place to inhabit. Offices have not only a ticket window for each class, but for each important section, so that one has only to plank his money, with the remark 'return' or 'single.' I like the European mode of having its price marked on each ticket. Underground travel may not be pleasant, but necessity established the scheme and keeps it running. There are only about 50 tram-car lines in the city, traffic preventing their use on crowded streets. The old-fashioned omnibus is on 200 routes, while hansom cabs and four-wheelers are in thousands. Pavements are of stone, wood and asphalt, each having advocates to uphold the superiority of its claim.

Without being unduly exact, London may have 2500 streets, circus, lanes and crescents. Only few streets are of great length and these have many names. Take one for example, beginning 5 miles west of St. Pauls as Goldhawk-road, then Uxbridge-road, Notting-hill; along Hyde-park it is Bayswater-road, then changes

into Oxford-street, New Oxford, Holburn-viaduct, Newgate-street, Cheapside, Cornhill, Leadenhall; then merges into Aldgate, Whitechapel, High-street and Whitechapel-road. Take another—6 miles west of St. Pauls it is High-road, then King-street, Hammersmith-road, Kensington-road, Kensington-gore, Knight's-bridge, and at Hyde-park corner becomes Piccadilly, then Coventry-street, Cranbourn-street, Long-acre and Great Queen-street. Over 670 streets are called 'roads,' as Camden-road, Euston-road, City-road; St. is prefixed to about 50, as St. George, St. James, St. Mary Axe. There are 33 King-streets, 24 Queen-streets, 25 New-streets and 18 Old, 23 Park-roads, 22 High-streets, 21 Great-streets, 20 Church-streets and 14 Prince-streets. People of every nationality and dress are seen on London streets—the Syrian from Damascus, the Hindoo from Calcutta. A circus clown or Indian chief in official costume would draw small attention. Along the crowded parts a person on foot has to watch sharply or he may need the hand of a surgeon or to be carried away on a stretcher: respect to personal safety deters him from examining objects, however interesting, along his route. The top of an omnibus is the best position for viewing the sights. Sometimes a dozen or two men are seen walking with slow and steady step along the curb, at some distance apart, wearing beavers twice the length sanctioned by fashion, affording room for advertisements pinned round them. During the heat of summer one meets a line of men dressed entirely in furs, great tall caps, coats and nether garments, an advertisement pinned on somewhere. The old-fashioned variety of a board at front and back for display of posters has become too tame and is being replaced by a style more fantastic. 'Walking advertisements' are mostly used by theaters and flash entertainments, the bill-carriers receiving a shilling a day from agents who themselves get two shillings. Among the good schemes of general Booth was to cast aside those merciless 'middlemen' and pay the bill-carriers what they so dearly earned.

Covent garden, a vegetable, fruit and flower market, is one of the London sights, seen from 5 to 7 a. m. During much of the night wagons are rumbling along from the country, laden with requisites for the famed mart, and by 6 a. m. business is in full vigor. Here are barricades of cabbage, turnips, cauliflowers and minor vegetables of many names, ten feet in height and wide in proportion. Later come the flowers in such numbers, variety and beauty that I forbear attempt at individual comment. Among the good qualities of English people is an extraordinary

love of flowers and probably a sum equal to the revenue of a young city is laid out in London yearly for blooms. One is surprised to see persons in humble life, carrying off for home decoration quantities that must have cost no small figure. Flowers they seem to regard as prime necessity, and the writer is far from pronouncing the fraction so spent by name of extravagance. Women and girls buy small lots of vegetables or flowers which they retail singly or in bunches along the streets. One day passing a market I saw an old dame sitting motionless on the ground, with a quantity of greens on her lap she was tying in bunches to sell. Among the rush and din of trading how did she escape unhurt? but there she sat motionless as a statue, a bunch of leeks in her left hand, a long spear of grass for tying them in her mouth and fast asleep. With a curious head-dress, an odd shrewd expression on her red bloated features, she formed a most comical picture; while amid the din of tongues and hurry of feet this sleeping beauty reposed serenely as in a curtained alcove by a crook of the Nile. After advancing a short way, I returned—the sleeper had been disturbed, but the spear of grass was between her lips, while both eyes were being industriously rubbed preparatory to waking.

London is unquestionably the world's mart for old books. Here one may pick out literary treasures scarcely soiled, at from one-fourth to one-tenth of original figures; and I venture to say that for \$5 a better library could be purchased than is found in not a few respectable houses. Of course duty and expense of bringing them here would add some 20 per cent extra. The sale of prints cut from newspapers and magazines is actively prosecuted by small boys at one to three cents a cut. In parts where pavements are broad, smooth and not crowded, persons make a business of drawing pictures, usually burning ships and prairies on fire—such exhibitions of art being rewarded by an occasional penny. Any encouragement more solid would doubtless multiply the number and materially interfere with travel. London streets are never empty; the whirl of cabs and landaus conveying lovers of pleasure from theaters, balls and revels, mingle with the slow rumble of laden wheels bringing commodities in to early markets. With the gay and festive it is Friday night, with the laboring man it is Saturday morn. London in a sense has no night, for long before one class has removed its harness another is oiling machinery and starting again in the race. To one from the country it appears strange on waking at two a. m. to find people hurrying along lighted streets briskly

as at high noon—he knows not whether they are making tracks to daily toil or a bee-line to their dormal quarters.

London has over 100 clubs mostly in fashionable parts, not a few of them magnificent piles that cost a half-million. The number of members range from 500 to 1500, entrance fee \$50 to \$200, yearly subscription \$10 to \$20. These clubs are essentially great hotels, with culinary fit-out rarely surpassed and chief cooks that would scarcely feel complimented by an interview with a lord. Luxurious reading-rooms are supplied with papers, and gaming apartments with varied facilities for amusement.

The postoffice building is 300 feet long and has a gallery all round from which proceedings may be inspected. What a hive of industry it is—hundreds of (apparently) old-fashioned box-pews, each with its clerks and all busy as bees in a meadow. The man in charge of the mint appears not anxious to entertain strangers and only part of the workings are seen. The weighing appliances are exceedingly perfect and of delicate touch. At time of my visit Canadian 10 cents were being coined, also £5 pieces which failed to go into circulation and are held at a premium. They are magnificent coin, larger than the United-States \$20 and look a good deal like medals. The brewery of Barclay & Perkins (second of its kind in extent) was started in 1780, covers 16 acres, employs over 600 men in the various uses of vatmen, coopers and teamsters. A well 450 feet supplies water and 100-horse power steam-engine supplies power for raising it to the surface. The place is a jungle of enormous vats, tanks and appliances of which I had small knowledge. The tanks are of slate and miniature lakes in extent; some vats are tall as a two-story house and one is said to contain twice as much as the famed Heidelberg tun. In the tables are 160 horses kept in the best of prime condition, which seems to be the happy lot of brewer nags in every clime. The firm employs \$10,000,000 capital, while the five partners are probably worth \$50,000,000.

The London board has in operation 400 schools with about 500,000 pupils at a yearly cost of over \$15 each. Head masters receive an average of \$1350, head mistresses \$960, assistant master \$560, assistant mistress \$430. The city contains about 50,000 Jews who have many synagogues, 19 charitable home and relief societies, 12 educational institutes, one of them an elementary school with attendance of 2000, said to be the largest in Britain. The metropolitan police of all ranks number about 14,000, their jurisdiction extending to all places within a radius of 12 miles from St. Pauls. The city has some 300 periodicals

all told, Fleet-street being the great home of preservative art. London has over 100 hospitals, 800 charitable institutions and benefit aids—even the shoe-blacks have 9 societies.

In London are two companies (Cook and Gaze) who make a business of conducting tourists to all parts of the world. Over 50 years ago Cook started the enterprise and from small beginnings it has become one of the most widely-known schemes in existence—indeed the name of Mr. Thomas Cook is familiar to thousands who never heard of the Queen or of Gladstone. The Cooks have agencies throughout the civilized world and even in places where civilization is doubtful; their coupons are accepted from Cairo to Moscow and from Paris to Brazil. A person wishing to visit Rome, Jerusalem, Damascus, Peru, Calcutta (in short any part accessible to the foot of guide or hoof of donkey) has only to pay according to fixed schedule and off he goes. In cities he lives in hotels, in the desert he abides in tents; even in the wild passes of Sinai and Tadmor an armed guard surrounds his dwelling and he sleeps in peace. The Cooks had princes and kings among their patrons and in the late Egyptian war it was their steamers that carried British troops up the Nile. From travelling in their company to a small extent I am prepared to say that everything is done according to contract.

Now a few words respecting the people. An impression prevails abroad that English people are unsociable and distant. This is by no means correct. In great and populous centers experience teaches the unsafety of confiding in strangers without some guarantee of their worth; let such guarantee be forthcoming and English people will be found kind and obliging as others. On my first trip across I formed a steamboat acquaintance with an excellent Glasgow man, who gave me a note to a firm of commission merchants in Manchester, which in time I presented. I never received greater kindness from old friends.—It was really excessive. In travelling on the continent I often fell in with English families and parties going the same route. At first they were invariably distant, but in time the coolness wore away and they became most agreeable people: I shall always entertain good feelings towards a London family with whom I spent a day on the site of Waterloo battle. Friends in this province furnished an introductory note to a young man in London, employed by Lombard-street bankers; the impression left is that in all my life I never met a more agreeable person. These are only a few of the many instances that make me think well of English people. Indeed one has

small idea there are so many estimable people alive till he moves out among them; but to the reader about going abroad let me gently whisper—'You're a happy man unless you meet rascals.'

Londoners speak English after a peculiar fashion which they can afford to do seeing they are numerous enough for a nation. A noted peculiarity is their shortening words into the smallest possible compass. Pontefract has long ago become Pomfret, Worcester has shrunk into woster, supplying analogy by which Rochester may decline into rooster. I know well how most who read this will pronounce the word Holburn; Londoners call it 'obn,' and I heard an omnibus driver in a pitch of excitement give the word Piccadilly in two syllables by combining the first, second, sixth, eighth and tenth letters. Scores of like instances might be added. Londoners give to several vowels a sound only sanctioned by their custom—for instance long o becomes ow, so that row a rank and row a street, brawl are alike in sound as in spelling. Road they pronounce 'rowd,' paper is thinned out into 'pieper' and waves become 'wives.' I once heard a Londoner in a public address use the words 'angry wives,' which I of course took to mean wrathful spouses, and pictured to myself a dozen viragos with disordered hair, swinging broom-sticks. Some are of opinion that Londoners are bound by a code of society and dictates of conscience not to sound the letter h unless it be absent, then to apply it with double effect. The idea is entirely out of plum and defective. I noticed only one example of such perversion and this is how it happened. Coming from Paris to Dieppe by rail, when passing a bridge to right, a Londoner who sat alongside exclaimed excitedly—'See that hen on the bridge.' I looked with mighty effort, wondering what a sensible biddy could be doing that hour in such a place. Noticing that I failed to catch the object, he repeated—'Don't you see that great hen on the bridge; that's to show it was built by Napoleon.' 'Oh yes, yes (I said reproachfully), how stupid not to have seen it sooner.' Now that remark of mine was a small pink fib, for when he first spoke I was staring at a cap. N about two feet in length, cut deeply into the structure.

Perhaps no city on earth offers so great disparity of price for board as London. In the west end one may call his own for 24 hours a sitting and bed room at two or three guineas, or he can find accommodation near the docks for 8 cents per night, not so bad as one could expect. In regard to food, one may dine for three cents or three dollars as may chance to suit his condition.

A king or emperor can be accommodated in style befitting his station as readily as one whose outlay for bed and board is only sixpence per diem. On the continent arrangements of meals differ widely from those in this country. Early in the morning one gets a cup of coffee or tea with bread, butter and honey, brought to the bedroom if desired—the refectation being always known as ‘coffee.’ Breakfast follows by 8 or 9, called ‘breakfast with a fork’ if meat be set down. Noon brings luncheon, somewhat like dinner in style, tho less elaborate; the weighty and overwhelming dinner usually comes about 7, consisting of 9 to 12 courses, some of them a mere apology to increase the count. Wine is always set down without additional charge, a poor, cheap trash which few would care to have inside of their persons. Good wine may be ordered, but is charged extra. Often a man orders two or three kinds and blends them to suit; others fancy alternate drinks. Soap is not supplied in hotels, much less combs and brushes; candles are charged extra, but the ‘sticks’ are graciously offered. In Germany and Holland a feather bed about 5 feet square is laid over the quilt, a most ridiculous arrangement, for it never ‘stays put,’ besides being inconveniently heavy. By some occult scheme the Dutch make tables, bureaus, bedsteads and all woodwork in their houses shine like metal.

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On July 9th I was one of many thousands watching a review at Aldershot, a noted camping ground 40 miles to west of the city. Early as 4 a. m. troops, volunteers and militia began to assemble and spectators followed close in their wake. Official count placed all arms at 60,000, slightly, I believe, in excess of actual figures. Regular troops were under command of Sir A. Alison, volunteers and yeomanry under Sir Evelyn Wood, Duke of Cambridge (the Queen’s cousin, a distinguished carpet and bed-room hero) having charge of the whole. Shortly before noon the thunder of cannon announced her Majesty’s arrival, and the royal standard was before long dashing and plunging in the breeze. Tremendous cheering followed, giving way when massed bands struck up the national anthem. The Duke was attended by a staff of distinguished officers, and besides an escort from the 20th Hussars, 16 Indian troopers formed a body-guard for the Queen. An address and reply were followed by three mighty cheers that went rolling and surging along the troops and crowded valley like a western gale. The march-past now began, and continued for three hours. First the regu-

lar troops in companies of 100 in two ranks; when a regiment had passed in this order, another followed at 100 steps. Cheers went up as each company passed the grand-stand in lines apparently invincible as walls of rock. The Coldstream-guards and royal Irish received a grand ovation, also the Cameron Highlanders as they swung past, kilted and plaided with pipers ahead. Some regiments bore aloft remnants of battle flags from China, Russia and Egypt, calling forth maddening cheers. Next came the militia in the same order, making fine appearance except that want of drill was evident in their wavering lines. As the last company disappeared six batteries of artillery trotted by, with their gear and their cannon; then three regiments of household troops, fine stalwart fellows in glittering form and on magnificent horses. Later, cavalry re-formed facing the grand-stand about half mile off—3200 sabres flashing aloft advanced slowly at first, quickening to the violence of a charge and suddenly halting about 50 yards from the royal group. This brilliant manœuvre brought the review to a close amid a parting salvo of cheers. From an adjoining hill I watched the vast multitude melting away in all directions, troops and volunteers winding along the valley, each company headed by its band. To me the sight was peculiarly attractive.

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On September 28 I left Euston station for Liverpool by the 'London and North-western,' a line that shows little except fields, pasture and meadow; fields clean and tidy as a lawn, hay built in square blocks and like the handsome grain stacks, tastefully thatched. Many were plowing, nearly all the teams consisting of three horses, occasionally stepping in Indian file. Large fields of turnips, potato-digging in progress, some grain in stook and fields uncut—from appearance the scythe considerably in use. Several towns passed, Rugby among the number. Liverpool reached about 3 p. m.—appearance of much poverty and crowds standing round taverns along Water-street where they could breathe an occasional whiff from the treasures inside. Whatever be 'the true inwardness,' much poverty and more than average share of filth seem to be the natural lot of seaports. But I am not going to moralise, and after some reference to its world-famed docks I shall hasten to finish—merely referring to the 'Alabama,' launched from Birkenhead across the Mersey exactly 30 years before the time of writing.

Early in 1862 arrangements were made by the confederate government with Messrs. John Laird & Sons for construction of

a wooden cruiser to prey on American commerce. The object of the vessel was long concealed, but truth finally coming out, the U. S. minister at London requested the suspicious craft to be detained. After due expenditure of red tape and red seal, a fiat went forth to detain 'No. 290' but the bird had flown—an instance of stable-locking after the theft. It is even broadly hinted that delay was manufactured to suit conditions—but who can tell? The 'Alabama' was a wooden cruiser over 1000 tons, barque-rigged, 700 horse-power, built for \$250,000, but it cost the British public a good deal over 60 times these figures. At Azores she received guns and requisites from a London vessel and in August Semmes raised the confederate flag and began to destroy his own country's commerce. In less than two years the ship had burnt, sunk and destroyed 65 vessels and property estimated at \$4,000,000. Swift cruisers furrowed the deep in search of the pirate with no success till in June, 1864, she entered Cherbourg harbor in north of France, 80 miles from the English coast. A few days later the U. S. war steamer 'Kearsage' also entered and Semmes at once issued a challenge. On June 19th both vessels moved outside and began hitting each other in the face. The engagement (witnessed by thousands) was a spirited affair while it lasted; but in less than one hour the notorious 'Alabama' was resting quietly on the bottom, Semmes and some of his crew having been picked up by the English yacht 'Deerhound.' The American government promptly notified England that it would be called on to pay damage occasioned by infringement of international law in respect to confederate cruisers. British lawyers having concurred, the foreign secretary and U. S. minister at London agreed on settlement by arbitration, a treaty afterwards ratified by senate. Still the Yankees were in no hurry and president Grant instructed his minister at London to drop all further negotiations at present. They no doubt wished to let the matter stand till such time as John Bull had some trouble at home, then press him tightly to settle. But stupidly as John had acted in recognizing the South and in letting the 'Alabama' cruiser go, he didn't like the idea of a hickory rod in pickle; so after a while proposals were renewed, coupled with expressions of regret that offence had happened. These were accepted; an arbitration at Geneva after 9 months of figuring and fencing, finished work Sept. 15, 1872, awarding to Uncle Sam \$15,000,000 of British money. After every mouth had been filled and every authentic claim fully satisfied, there yet remain-

ed one-third of the millions; this to their credit, not a few wished to give back, but congress failed to reach equal goodness. It seems a destiny of Britain to burn its fingers in war wherever conducted; for with a thousand years experience at sea how else could it blunder in a matter of international law to the extent of some two dozen tons in coined sovereigns. The 'Alabama' claim was probably the largest business ever settled by pens instead of bigger weapons and may result in good by forming a precursor in the more excellent way.

To its wonderful system of docks Liverpool no doubt owes its name and position among commercial centers. At present they number 34, covering more than 1000 acres and extending about 9 miles if connected. Birkenhead has 8 docks, covering more than 500 acres, making a total of 1530 acres for both places. The added length of wharfage is given at 20 miles, and the whole cost at \$130,000,000. The first dock (3 acres in extent) was opened in 1715, the next followed in 1753. At beginning of 1800 there were five floating docks covering 26 acres, besides dry docks and basins. Prince's graving dock, completed in 1821, cost \$2,800,000, and Albert dock, opened in 1845, cost \$3,900,000. Canada dock covers 18 acres with $\frac{3}{4}$ mile quayage; Langton dock covers 21 acres with quay space of over one mile. Connected with it is a monster crane capable of lifting 100 tons, intended for raising boilers and heavy machinery. Alexandra dock with its branches covers $44\frac{1}{2}$ acres, has $2\frac{1}{2}$ miles of berthing space, holds 22 ships in position where they can be loaded or discharged and is the biggest of its kind. Its massive iron and timber bridges are worked by hydraulic power, and the machinery for emptying graving docks is moved by enormous engines. Waterloo dock is used for corn trade and has immense warehouses holding 1,500,000 bushels. The docks vary but little in depth, generally from 28 to 32 feet; the workmanship is simply perfect, the sides and bottom even as plastered walls. The stone are laid in position by donkey-engines running on girders above, and from 4 to 5 years are required to finish one of these enormous constructions. Now, since we have returned to our place of starting, I will say to the reader—'GOODBY'!

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ERRORS

- P. 1, 14th line from top, should read '220,000 inhabitants' instead of 2
- P. 1, 14th line from bottom, read 'clean' not clear.
- P. 1, 9th line from bottom, should read '4½ and 5½' instead of 4½
- P. 1, 3, 3rd line from top, should be 'himself' not himself.
- P. 1, 9, 12th line from top, insert 'feet' after 300.
- P. 1, 6, 22nd line from top, read '15th June' instead of 5th.
- P. 1, 03, 14th line from bottom, should read 'carvings and frescoes' not ings of frescoes.
- P. 1, 37, after last word in last line, insert 'nearly.'
- P. 1, 73 and 17, 14th line from bottom and 2nd line from top, bergerie read 'au...rge.'
- Page 207, 15th line from bottom, tilte should be 'title.'
- Page 200, 2nd line from bottom, for gale read 'gate'